ATUL LTD

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Ref : Atul/SHE/EC Compliance/07 **Through Reg. AD Post**
Date : 30th November, 2017

To,
Regional Officer,
Regional Office, Western Region,
Kendriya Paryavaran Bhavan,
Link Road No. 3, E-5, Ravi Shankar Nagar,
Bhopal 462016, Madhya Pradesh.

Subject : Six Monthly Compliance on EC/CRZ Condition
Reference : 1. EC F. No. J -11011/48/2003- IA II (I) dated 20.02.2004
2. EC F. No. J -11011/85/2009- IA II (I) dated 13.05.2009
3. CRZ Clearance No. ENV-1097-2942-P, dated 17.01.1998

Respected Sir,

Please find attached herewith six monthly compliance reports for the period of May 2017- October 2017 with respect to the above referred Environment Clearances granted to M/s Atul Ltd. Valsad, Gujarat.

We hereby request you to kindly validate the same.

Kindly do the needful and oblige.

Thanking you.

Yours truly,
For ATUL LIMITED,

(B. N. Mohanan)
Whole time Director & President – Utility & Services

CC: 1. Mr. B. R. Naidu (Scientist 'E' & In charge), Central Pollution Control Board, Zonal Office , Vadodara
2. The Member Secretary, Gujarat Pollution Control Board, Gandhinagar

Atul Limited

Project: Expansion of Pesticide and Synthetic Organic Chemicals manufacturing unit at post Atul, Dist. Valsad

EC Compliance Report for the period May 2017 – October 2017as per EC F. No. J -11011/85/2009-IA II (I) dated 13.05.2009

<table>
<tr><th>No.</th><th>Condition</th><th>Compliance</th></tr>
<tr><td colspan="3">A. Specific Conditions</td></tr>
<tr><td>i</td><td>Industrial Waste water generation shall not exceed 17,283 m³/d.</td><td>Complied. The average wastewater generation for the report period is 7841 m³/day only which is well within the limit. Detail break up is given in below table:
<table>
<tr><th>Wastewater generation m³/day</th><th>May-17</th><th>Jun-17</th><th>Juy-17</th><th>Aug-17</th><th>Sep-17</th><th>Oct-17</th><th>Total</th></tr>
<tr><td>Month wise</td><td>252740</td><td>235340</td><td>190201</td><td>224370</td><td>233190</td><td>307040</td><td>1442881</td></tr>
<tr><td>Per day</td><td>8153</td><td>7845</td><td>6136</td><td>7238</td><td>7773</td><td>9905</td><td>Avg. 7841</td></tr>
</table>
The maximum values during the compliance period confirms that at no time the wastewater generation went beyond the stipulated value. Summary is given below:
<table>
<tr><th rowspan="2">Wastewater generation</th><th rowspan="2">Stipulated value</th><th colspan="3">Values for the period May 17 – Oct 17</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>Wastewater generation m³/d</td><td>17283</td><td>6136</td><td>9905</td><td>7841</td></tr>
</table></td></tr>
<tr><td></td><td>23 m³/d High COD effluent shall be incinerated.</td><td>We have been segregating high COD streams (COD >50000 ppm) and same is being taken for recovery to get economic benefit. Rest lean effluent of COD <2000 ppm is finally sent to ETP for treatment.
All the high COD streams are being diverted to recovery system rather than incineration. Streams containing Ammonia, Methanol, Copper, Solvents, Phenolics, etc. are taken for the recovery of the same and reused. Hence, there is no High COD Waste water stream remaining and therefore no incineration was done during this period.</td></tr>
</table>

<table>
<tr>
<td></td>
<td>97 m³/d High TDS effluent shall be evaporated through MEE.</td>
<td>Complied. The average 113.9 m³/d high TDS waste water was evaporated in MEE. Detail break up is given in below table:

<table>
<tr><th>High TDS effluent m³</th><th>May-17</th><th>Jun-17</th><th>Juy-17</th><th>Aug-17</th><th>Sep-17</th><th>Oct-17</th><th>Total</th></tr>
<tr><td>Month wise</td><td>3533.9</td><td>3200.6</td><td>2954.9</td><td>3733.7</td><td>3179.1</td><td>4025.5</td><td>20627.7</td></tr>
<tr><td>Per day</td><td>113.9</td><td>106.7</td><td>98.5</td><td>124.5</td><td>105.9</td><td>134.2</td><td>Avg. 113.9</td></tr>
</table>

The maximum, minimum and average values are given below:

<table>
<tr><th rowspan="2">High TDS effluent</th><th colspan="3">Values for the period May 17 – Oct 17</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>m³/d</td><td>98.5</td><td>134.2</td><td>113.9</td></tr>
</table>

High TDS effluent generation is variable as per the production.</td>
</tr>
<tr>
<td></td>
<td>Total quantity of 17283 m³/d shall be treated at company’s own effluent treatment plant.</td>
<td>Complied. The average 7841 m³/day wastewater was treated in the company’s own effluent treatment plant during the reporting period.</td>
</tr>
<tr>
<td></td>
<td>Final Discharge of Treated effluent is being discharge into river par through 4 km line constructed by M/s Atul.</td>
<td>Complied. Final discharged effluent meeting all state pollution control board’s limit is being discharged into river Par through 4 km line.</td>
</tr>
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<tr>
<td></td>
<td>Ammonia bearing effluent shall be subject to ammonia recovery before mixing with normal effluent stream.</td>
<td>Complied. Ammonia bearing effluent streams generated from 4,4 DDS production is recovered by stripping in series of packed column. The ammonia contained water from the stripper is condensed in condenser and recovered ammonia is being recycled back in production of 4,4 DDS.

Details are given in below table:
<table>
<tr><th>Amm. bearing effluent</th><th>May-17</th><th>Jun-17</th><th>Juy-17</th><th>Aug-17</th><th>Sep-17</th><th>Oct-17</th><th>Total</th></tr>
<tr><td>KL</td><td>320</td><td>347</td><td>364</td><td>325</td><td>325</td><td>369</td><td>2050</td></tr>
</table>
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</tr>
<tr>
<td></td>
<td>Phenol will be recovered from phenol containing effluent.</td>
<td>Complied. 20 Kgs phenol is recovered from effluent per one MT of 2,4 D production. A distillation column has been installed for phenol recovery. Resin tower are installed to recover phenol. Data is given in below table:
<table>
<tr><th></th><th>May-17</th><th>Jun-17</th><th>Juy-17</th><th>Aug-17</th><th>Sep-17</th><th>Oct-17</th><th>Total</th></tr>
<tr><td>DCP crude distilled</td><td>1185.6</td><td>1209.5</td><td>1544.7</td><td>1576.62</td><td>1630.2</td><td>1664.4</td><td>8811.02</td></tr>
<tr><td>2,4DCP recovered</td><td>1040</td><td>1061</td><td>1355</td><td>1383</td><td>1430</td><td>1460</td><td>7729</td></tr>
<tr><td>2.6DCP recovered</td><td>78</td><td>79.57</td><td>101.625</td><td>103.725</td><td>107.25</td><td>109.5</td><td>579.67</td></tr>
<tr><td>OCP/ Residue</td><td>67.6</td><td>68.93</td><td>88.075</td><td>89.895</td><td>92.95</td><td>94.9</td><td>502.35</td></tr>
</table>
</td>
</tr>
</table>

The treated effluent shall confirm the discharge norms.

Complied. The treated effluent is meeting all the state pollution control board's discharge norms and values of various parameters of treated effluent is given in **Table 1**. (Pl. see pg. no. 25)

The maximum values during the compliance period confirms that at no time the emission went beyond the stipulated standards. Summary is given below:

Sr. No.	Parameter	Norms	Values for the period May 17 – Oct 17		
			Min.	Max.	Avg.
1	pH	5.5-9.0	7	7.5	7.3
2	Temperature	40 deg C	28	30	28.8
3	Colour (pt. co. scale)in units	---	35	62	46.7
4	Suspended solids	100 mg/l	39	68	48.5
5	Phenolic Compounds	5 mg/l	0.2	0.7	0.5
6	Cyanides	0.2 mg/l	0	0	0
7	Fluorides	2 mg/l	0	0	0
8	Sulphides	2 mg/l	0.1	0.2	0.2
9	Ammonical Nitrogen	50 mg/l	16	38	29.3
10	Total Chromium	2 mg/l	0.01	0.2	0.1
11	Hexavalent Chromium	1 mg/l	0	0	0
12	BOD (3 days at 27°C)	100 mg/l	32	48	39.3
13	COD	250 mg/l	198	232	215.7

<table>
<tr><td></td><td>The domestic effluent shall be disposed off through septic tank / soak pit.</td><td>Complied. Domestic effluent goes to septic tank / soak pit and finally diverted to ETP. Detail of Domestic effluent generation is given in below table:

<table>
<tr><th>Domestic Wastewater generation m³</th><th>May-17</th><th>Jun-17</th><th>Juy-17</th><th>Aug-17</th><th>Sep-17</th><th>Oct-17</th><th>Total</th></tr>
<tr><td>Month wise</td><td>11234</td><td>10458</td><td>9912</td><td>9731</td><td>10229</td><td>13167</td><td>64730</td></tr>
<tr><td>Per day</td><td>362</td><td>349</td><td>320</td><td>314</td><td>341</td><td>425</td><td>352 (Avg.)</td></tr>
</table>

The maximum, minimum and average values are given below:
<table>
<tr><th rowspan="2">Domestic Wastewater generation</th><th colspan="3">Values for the period May 17 – Oct 17</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>Domestic Wastewater generation m³/d</td><td>314</td><td>425</td><td>352</td></tr>
</table>
</td></tr>
<tr><td>ii</td><td>The process emissions (SO_2, NH_3, Cl_2, and HCl, shall be scrubbed with Scrubbers.</td><td>Complied. All the SO_2, NH_3, Cl_2, and HCl vents are being routed through adequate and properly designed scrubbing system. Furthermore, most of the process and flue gas stacks have been monitored through online monitoring system and also connected to GPCB and CPCB website.</td></tr>
<tr><td></td><td>The emission shall be dispersed through stack of adequate height as per CPCB standard.</td><td>Complied. The emission is dispersed through adequate height of stacks as per CPCB standard as given below:

For Incinerator: Minimum stack height shall be 30 meters above ground.

For Boilers : Stack Height $H=14(Q)^{0.3}$
Details of stack results along with its height data is given in Table 2. (Pl. see pg. no. 26) Gaseous emissions from process units are monitored regularly on monthly basis.

During the report period no case varies from standard.</td></tr>
</table>

	The gaseous emission from the DG sets shall be dispersed through stack of adequate height as per CPCB standards.	**Complied**. The gaseous emission from the DG sets is being dispersed through stack of adequate height as per CPCB standards given below: The minimum height of stack is provided using the following formula (ref. CPCB): H = h+0.2x√KVA H =Total height of stack in meter h =Height of the building in meters where the generator set is installed KVA = Total generator capacity of the set in KVA However, DG sets are being used only during emergency startups.
	Acoustic enclosures shall be provided to the DG set to control the noise pollution.	**Complied**. All DG sets are having inbuilt acoustic enclosures to control the noise pollution and meeting the prescribed norms.
iii	**The company shall upload the status of compliance of stipulated environmental clearance conditions including results of monitored data on its web site.**	**Complied**. The status of compliance of stipulated environmental clearance conditions including results of monitored data is posted on our web site. And it can be viewed at: http://www.atul.co.in/sustainability/pdf/Atul-EC-Compliance-Report.pdf
	Status of compliance of stipulated environmental clearance conditions to be sent to Regional office of MoEF, the respective Zonal office of CPCB and the state pollution control board.	**Complied**. Compliance status report to the stipulated environmental clearance conditions are regularly submitted to the regional office of MoEF, zonal office of CPCB and state pollution control board.

The criteria pollutant levels namely; SPM, RSPM, SO2, NOx (ambient levels as well as Stack emissions) or critical sectorial parameters like VOC, indicated for the project shall be monitored and displayed at a convenient location near the main gate of company in the public domain.

Complied. The critical pollutants parameters namely; SPM, RSPM, SO_2, NOx are monitored regularly on monthly basis and displayed at board at the company entrance.

Details of stack results, ambient air monitoring and VOC measured in fugitive emission is given in **Table 2, 3 and 4** respectively. (Pl. see pg. no. 26,30,32)

The maximum values during the compliance period confirms that at no time the emission level went beyond the stipulated standards. Parameter wise summary is given below:

Summary of Stack results:

No.	**Parameter**	**Standard values as per CCA**	**Unit**	**Values for the period May 17 – Oct 17**		
				Min.	**Max.**	**Avg.**
1	SO_2	40	mg/Nm^3	2.9	6.8	5.2
2	SO_2 (kg/T)	2	kg/T	0.5	0.8	0.6
3	NOx	25	mg/Nm^3	3.4	12.8	6.9
4	HCl	20	mg/Nm^3	3.5	6.8	5.7
5	PM	150	mg/Nm^3	4.2	45	25.2
6	PM with Pesticide compound	20	mg/Nm^3	4.8	7.8	6.2

Summary of Ambient Air Quality results:

Station	**Parameter**	**Limit microgm/NM³**	**Values for the period May 17 – Oct 17**		
			Min.	**Max.**	**Avg.**
66 KV	RSPM (PM2.5)	60	22.0	29.0	26.3
	PM10	100	48.0	59.0	55.0
	SO2	80	8.2	56.0	17.0
	NOx	80	9.5	11.8	10.4

			Ammonia	850	ND	10.2	1.7	
			HCl	200	ND	5.6	1.7	
		Opposite Shed D	RSPM (PM2.5)	60	27.0	35.0	30.7	
			PM10	100	49.0	59.0	53.5	
			SO2	80	10.4	11.2	10.6	
			NOx	80	11.2	13.6	11.9	
			Ammonia	850	13.4	18.2	15.6	
			HCl	200	ND	ND	ND	
		Near West site ETP	RSPM (PM2.5)	60	31.0	38.0	33.8	
			PM10	100	51.0	58.0	55.0	
			SO2	80	10.2	11.2	10.7	
			NOx	80	12.2	13.2	12.6	
			Ammonia	850	ND	ND	ND	
			HCl	200	ND	ND	ND	
		Near North ETP	RSPM (PM2.5)	60	30.0	37.0	33.2	
			PM10	100	49.0	56.0	53.5	
			SO2	80	9.6	10.8	10.1	
			NOx	80	1.4	13.6	9.9	
			Ammonia	850	11.2	14.6	13.1	
			HCl	200	ND	ND	ND	
		TSDF	RSPM (PM2.5)	60	30.0	38.0	35.5	
			PM10	100	52.0	59.0	56.5	
			SO2	80	9.6	12.2	11.2	
			NOx	80	11.4	14.6	13.1	
			Ammonia	850	ND	ND	ND	
			HCl	200	ND	ND	ND	
		Main Guest House	RSPM (PM2.5)	60	20.0	28.0	22.3	
			PM10	100	45.0	52.0	49.0	

				SO2	80	10.2	11.2	10.5	
				NOx	80	10.8	12.6	11.5	
				Ammonia	850	ND	ND	ND	
				HCl	200	ND	ND	ND	
			Wyeth Colony	RSPM (PM2.5)	60	20.0	27.0	23.5	
				PM10	100	46.0	54.0	50.7	
				SO2	80	8.6	11.4	9.7	
				NOx	80	9.2	12.8	10.8	
				Ammonia	850	ND	ND	ND	
				HCl	200	ND	ND	ND	
			Gram panchayat hall	RSPM (PM2.5)	60	21.0	26.0	23.8	
				PM10	100	46.0	54.0	49.7	
				SO2	80	9.2	10.2	9.6	
				NOx	80	9.6	11.4	10.7	
				Ammonia	850	ND	ND	ND	
				HCl	200	ND	ND	ND	
			Main office, North site	RSPM (PM2.5)	60	23.0	35.0	27.3	
				PM10	100	47.0	59.0	54.3	
				SO2	80	9.6	12.8	11.5	
				NOx	80	10.2	13.4	12.3	
				Ammonia	850	ND	ND	ND	
				HCl	200	ND	ND	ND	
			Haria water tank	RSPM (PM2.5)	60	20.0	28.0	24.0	
				PM10	100	38.2	52.0	45.5	
				SO2	80	6.2	9.3	7.4	
				NOx	80	7.6	10.8	9.3	
				Ammonia	850	ND	ND	ND	
				HCl	200	ND	ND	ND	

Summary of VOC results :

Plant	Area	Parameter	Prescribed Limit	Values of VOCs in Milligram per NM^3 for the period May 17 – Oct 17		
				Min.	Max.	Avg.
2,4 D	Reactor	Phenol	19	0.10	12.60	7.07
	Buffer tank	Chlorine	3	0.14	1.10	0.43
Resorcinol	Benzene storage tank area near vent	Benzene	15	0.80	2.80	1.51
	Near Extraction /scrubber unit	Butyl acetate	-	0.00	0.17	0.08
Pharma	At second floor work area	Ammonia	0.8	0.44	2.10	0.96
	Ammonia recovery area	Ammonia	0.8	0.69	5.20	3.28
Epoxy - I	At vacuum pump 2nd floor	ECH	10	3.80	9.10	7.48
	At vessel POS 1208 G.F	ECH	10	5.20	8.78	7.06
Shed H	At second floor work area	Nitrobenzene	5	1.70	3.76	2.61
Shed J	Buffer Tank	Chlorine	3	0.13	1.10	0.46

<table>
<tr>
<td>iv</td>
<td>The company shall adopt cleaner production technology to minimize the quantity of fresh water requirement and process effluent generation.</td>
<td>Complied.

Company is fully devoted towards protection of environment and has successfully completed many cleaner production projects and will continuously improve further.
We have already converted few of our plants as ZLD and are in process of converting many other plants as ZLD. Our Ankleshwar unit is completely ZLD unit.
Treated wastewater is being used in lime preparation at ETP, steam condensate is being collected and used in place of raw water, vacuum pump, gland cooling and other water is being collected and reused. Vacuum pumps are removed by installing centrifuge in place of neutch filter and water consumption is reduced. Cooling tower blow down water is used as fire hydrant make up and also used for dust suppression and fly ash quenching instead of fresh water. Water used for washing purpose is reused.

Details of water consumption break up is given below:

Details of water consumption:

<table>
<tr><th colspan="5">Water Consumption Break up m³</th></tr>
<tr><th rowspan="2">Period</th><th colspan="3">Water consumption in</th><th rowspan="2">Total</th></tr>
<tr><th>Process</th><th>Cooling</th><th>Domestic</th></tr>
<tr><td>May 17</td><td>238718</td><td>28084</td><td>14042</td><td>280844</td></tr>
<tr><td>Jun 17</td><td>205912</td><td>42460</td><td>13072</td><td>261444</td></tr>
<tr><td>Jul 17</td><td>190201</td><td>44465</td><td>12390</td><td>247056</td></tr>
<tr><td>Aug 17</td><td>187141</td><td>44685</td><td>12164</td><td>243990</td></tr>
<tr><td>Sep 17</td><td>192728</td><td>45160</td><td>12786</td><td>250674</td></tr>
<tr><td>Oct 17</td><td>258693</td><td>58695</td><td>16459</td><td>333847</td></tr>
</table>
</td>
</tr>
<tr>
<td>v</td>
<td>The company shall obtain Authorization for Collection; Storage and Disposal of Hazardous waste under the hazardous waste management</td>
<td>Complied. We have obtained authorization for our own TSDF through GPCB notification no. GPCB/HAZ/GEN-55/9647 dated 13th March 2000 and NOC no. CTE-65621 dated 19/11/2014. Also we have valid authorization under our</td>
</tr>
</table>

	(Handling and trans boundary movement rule-2008) for management of hazardous waste and prior permission from GPCB shall be obtained for disposal of solid waste in the TSDF.	current CCA No. AWH-67717 for handling, storage and disposal of hazardous waste. Copy of the same was submitted to Ministry vide our letter Atul/SHE/MoEF/Visit/3 dated 4.4.17.
	The concerned company shall undertake measures for the firefighting facility in case of emergency.	**Compiled**. Company is having two nos. of fire tenders, fully adequate hydrant system and trained staff, emergency response team(ERT) of trained workers, power supply from two source with emergency backup power provision from DG set as well grid and detailed on-site emergency plan. Mock drills are also carried out at regular interval.
vi	**The project authorities shall strictly comply with the rules and guidelines under manufacturing, storage and import of hazardous chemicals rule 1989 as amended in October, 1994 and January, 2000.**	**Complied**. We are complying with all the requirement of MSIHC rule 1989 as amended in October, 1994 and January, 2000 and having proper storage and handling system, Onsite emergency plan, Licenses, reporting, etc. The company complies with all stipulated norms of act made in CCA by GPCB are being complied. Latest compliance report by GPCB appointed Environmental auditor Shroff S R Rotary Institute of Chemical Technology, Vatariya, Dist. Bharuch for year 16-17 is attached as **Annexure 1**.
	All Transportation of Hazardous chemicals shall be as per the MVA, 1989.	**Complied**. Transportation of Hazardous chemicals are being done as per the MVA rule 1989. TREM (Transport Emergency) card and MSDS of chemicals are provided to transporter.
vii	**The company shall undertake waste minimization measures :** **Metering and control of quantities of active ingredients to minimize waste.**	**Complied**. All the liquid ingredients are being charged through measure vessels and/or flow meters to control on quantity as per the stoichiometry. All the solid ingredients are charged after proper weighment only. All these meters and weighing machines are calibrated and records are maintained.
	Reuse of by products from the process as raw materials or as raw material substitutes in other processes.	**Complied**. Sodium Sulfate, Sodium Thio Sulphate, Brine, MEE salt, Sodium hypochlorite, Copper Hydroxide, spent acid, etc. are few by-products from the process which are being sold for using the same either as raw material or as substitute to raw materials. Also, fly ash and Gypsum are being used as raw material for Brick Manufacturing. Sodium Hypochlorite, Sodium hydro sulfide, etc. are being used as raw material in other processes.
	Use of automated filling to minimize spillage.	**Complied**. Automated filling system for our agro products, polymers, resorcinol, dyes for small and bulk packing is provided to minimize spillage.

	Use of 'close feed' system into batch system.	**Complied**. Chemicals and solvents are handled in close handling system through pipe lines only.
	Venting equipment through vapor recovery system.	**Complied**. All the reactors are equipped with vents/stacks, which are connected to either vapor recovery system consisting of condensers, ejector/vacuum pumps and/or scrubbers. Genosorb technology for solvent vapor recovery is also installed and working perfectly.
	Use of high pressure hoses for equipment cleaning to reduce wastewater generation.	**Complied**. Many equipment like reactors, spray dryers, condenser wherever necessary are being cleaned with high pressure sparger / jet to reduce waste water generation.
viii	**Fugitive emissions in the work zone environment, product, raw material storage area shall be regularly monitored. The emission shall conform to the limits imposed by I.**	**Complied**. Fugitive emissions in the work zone environment and raw material storage area is being regularly monitored by NABL approved third party. Data for the reporting period is given in **Table 4** (Pl. see pg. no.32). Besides this online monitors in work area for parameters like Chlorine, HCl, Phosgene are also installed. The maximum values during the compliance period confirms that at no time the emission level went beyond the stipulated standards. **Summary is given in specific condition iii.**
ix	**The project authority shall provide chilled brine solution in secondary condenser for condensation of the VOCs.**	**Complied**. All the VOCs/solvent recovery systems are attached with chilled brine solution in secondary condenser for condensation of VOCs.
	The project authority shall ensure that solvent recovery shall not be less than 95%	**Complied**. On an average solvent recovery is 96%.
	The VOC monitoring shall be carried in the solvent storage area and data submitted to the Ministry.	**Complied**. We are monitoring VOC as well as other chemicals in work area as per Factories Act and records are being maintained in For No. 37. VOC monitoring in solvent storage area is being done and data are submitted through EC compliance report. Data for the report period is given in **Table 4.** (Pl. see pg. no.32)
x	**Solvent management shall be as follows:** **Reactor shall be connected to chilled brine condenser system.**	**Complied**. All the reactors handling solvent are connected/attached with chilled brine condenser for solvent recovery.

	Reactor and solvent handling pump shall have mechanical seals to prevent leakages.	**Complied**. All the reactors and pumps handling solvent are equipped with mechanical seals to prevent leakages.
	The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery.	**Complied**. The condensers provided are properly designed with respect to HTA and Residence time to achieve more than 95 % recovery. As mentioned above, average 96 % solvent recovery is being achieved.
	Solvents shall be stored in a separate space specified with all safety measures.	**Complied**. Solvents are stored in tank farms in separate tanks with proper earthing, flame arresters, lightening arresters, fencing, Fire hydrant system, Fire extinguishers, flame proof equipment, etc. safety measures.
	Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.	**Complied**. Double earthing is provided and regular checking and testing of the same is being done and recorded.
	Entire plant shall be flame proof.	**Complied**. Plants are equipped with Jumpers, flame proof electrical fittings and proper earthing as per the Hazardous area classification of PESO.
	The solvent storage tanks shall be provided with breather valve to prevent loses.	**Complied**. Breather valves have been provided to all the solvent storage tanks to minimize the loses.
xi	**Hazardous chemicals shall be stored in tanks in tank farms, drums, carboys etc.**	**Complied**. Hazardous chemicals are being stored in tanks, drums and carboys considering the storage quantity and chemical stored.
	Company shall develop an area of 33% green belt and selection of plant species shall be as per the guideline of CPCB.	**Complied**. Company has developed green belt and dense plantation inside and outside the factory in more than 33 % of total land. Company is having green belt development plan and planting more than about 50000 plants per year on regular basis. Green belt map is attached herewith.

<table>
<tr><td>xii</td><td>The company shall harvest surface as well as rain water from the roof tops of the building and storm water drain to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.</td><td>Complied. Company has recently constructed 6000 KL capacity pond to harvest rain water, which is the almost 75% of our per day requirement.

We are creating facility/ capacity to cater our consumption with rain harvested water with zero river drawls of water during the rainy days. Besides this, there are three check dams and pumping facility to harvest rain water.

We also construct temporary sand bag dam on top of dam towards the end of monsoon to store additional free flowing rain water in river Par.

In addition to above, surface runoff water and roof top water is used to recharge bore wells.</td></tr>
<tr><td>xiii</td><td>Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.</td><td>Complied. Occupational health surveillance of the workers is being done on regular basis and record maintained as per the factory act which is shown in below table:

<table><tr><th>Sr. No.</th><th>Month of Examination</th><th>Total No. of Employees</th></tr><tr><td>1</td><td>Quarter 1 (17-18)</td><td>1673</td></tr><tr><td>2</td><td>Quarter 2 (17-18)</td><td>870</td></tr></table></td></tr>
<tr><td colspan="3">B. General Conditions:</td></tr>
<tr><td>i</td><td>The project authorities shall strictly adhere to the stipulations made by the State Pollution Control Board.</td><td>Complied. The company adheres to the compliances and has not exceeded the stipulation. This has been certified by our Environmental auditors, an authorized agency and nominated by GPCB; through Environmental audit every year.

Latest compliance report by GPCB appointed Environmental auditor Shroff S R Rotary Institute of Chemical Technology, Vatariya, Dist. Bharuch for year 16-17 is attached as Annexure 1.</td></tr>
<tr><td>ii</td><td>No further expansion or modification in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.
In case of deviations or alterations in the</td><td>Last expansion of Pesticide and Synthetic Organic Chemicals was done in 2009 for which referred EC has been sought.

Thereafter we have planned for the expansion in various existing product and</td></tr>
</table>

	project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	introduction of new products for which we have applied for EC on 17.4.2015. Our EC application is under consideration. Expansion will be done only after getting EC.
iii	**At no time, the emissions shall exceed the prescribed limits.**	**Complied**. Monthly monitoring is being done by NABL approved third party. At no time, the emissions exceeded the prescribed limits during report period. **Summary of stack results given in specific condition no. iii.**
	In the event of failure of any pollution control system adopted by the units, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.	**Complied**. No such case happened during compliance period. Whenever such incident of failure of pollution control system happened, we will stop the operation and rectify the problem and then only restart.
iv	**The Gaseous emission (NOx, HCl, SO2 and SPM) and Particulate matter along with RSPM levels from various process units shall conform to the standards prescribed by the concerned authorities from time to time.**	**Complied**. The gaseous emissions (SO_2, NOx, and HCl) and particulate matters from various process units confirms to the standards prescribed by GPCB through CCA. Details of stack results for the compliance period is given in **Table 2**. (Pl. see pg. no. 26)
	At no time, the emission levels shall go beyond the stipulated standards.	**Complied**. We will ensure that at no time emission will go beyond the standards. The maximum values during the compliance period confirms that at no time the emission level went beyond the stipulated standards. **Summary of stack results given in specific condition no. ii.**
	In the event of failure of pollution control system(s) adopted by the unit, the respective unit shall not be restricted until the control measures are rectified to achieve the desired efficiency. Stack monitoring for SO_2, NOx and SPM shall be carried.	**Complied**. No such case happened during compliance period. Stack monitoring for SO_2, NOx and SPM has been carried out and details given in **Table 2**. (Pl. see pg. no. 26) Whenever such incident of failure of pollution control system happened, we will stop the operation and rectify the problem and then only restart.
v	**The Location of ambient air quality monitoring stations shall be decided in consultation with state pollution control Board and it shall be**	**Complied**. The Location of ambient air quality monitoring stations had been decided in consultation with GPCB so that at least one station is installed in the up wind and downwind direction as well as where maximum ground level

<table>
<tr><td></td><td>ensured that at least one station is installed in the up wind and downwind direction as well as where maximum ground level concentration are anticipated.</td><td>concentration are anticipated. The same had been shown to authority like SPCB, CPCB & MoEF during their visit to our factory.

List of our ambient air monitoring station is given below:
<table><tr><th>No.</th><th>Location</th></tr><tr><td>1</td><td>66 KVA GEB substation</td></tr><tr><td>2</td><td>Opposite Shed D</td></tr><tr><td>3</td><td>Near ETP (West Site)</td></tr><tr><td>4</td><td>ETP Plat (North site)</td></tr><tr><td>5</td><td>Near TSDF</td></tr><tr><td>6</td><td>Near Main Guest House</td></tr><tr><td>7</td><td>At Wyeth Colony</td></tr><tr><td>8</td><td>Gram panchayat hall</td></tr><tr><td>9</td><td>Near Main office, North site</td></tr><tr><td>10</td><td>Water tank at Haria Road</td></tr></table>Details of ambient air quality results is given in Table 3. (Pl. see pg. no. 30)</td></tr>
<tr><td>vi</td><td>Dedicated Scrubbers and stacks of appropriate height as per the central pollution control board guideline shall be provided to control the emission from various vents.</td><td>Complied. Dedicated Scrubbers with stacks of appropriate height (as per the central pollution control board guideline) have been provided to control the emission from various vents. Details of stack results along with its height data is given in Table 2. (Pl. see pg. no. 26)</td></tr>
<tr><td></td><td>The scrubber water shall be sent to ETP for further treatment or sell to actual end users.</td><td>Complied. The scrubber water is being sent to ETP for further treatment.</td></tr>
<tr><td>vii</td><td>The overall noise level in and around the plant area shall be kept well within the standard by providing noise control measures including acoustic hoods silencers, enclosures etc. on all source of noise generation.</td><td>Complied. In built Acoustic enclosure, silencer and insulation are provided on all source of noise generation to keep over all noise level within the stipulated standards like turbine, DG set, etc.</td></tr>
</table>

The ambient noise level shall confirm to the standards prescribed under Environment(Protection) Act-1986 Rules,1989 viz 75 dBA (day time) and 70 dBA (night time)

Complied. The ambient noise level confirm to the standard prescribed under EPA. The same is being regularly monitored and its details are given in **Table 5 and 6**. (Pl. see pg. no. 33)

The maximum values during the compliance period confirms that at no time the noise emission level went beyond the stipulated standards. Summary is given below:

Noise level monitoring data (Day Time)

Sr. No.	**Location**	**Permissible Limits, dBA**	**Values for the period May 17 – Oct 17**		
		75	**Min.**	**Max.**	**Avg.**
1	Near Main guest house	75	58	65	62
2	Near TSDF	75	61	67	63
3	At Wyeth Colony	75	58	62	60
4	Gram Panchayat Hall	75	58	63	60
5	Near Main Office North site	75	57	63	59
6	ETP North site	75	62	67	65
7	Opposite shed D	75	62	68	65
8	ETP West site	75	61	68	64
9	Water tank Haria road	75	64	68	66
10	Near 66KVA substation	75	59	67	63

Noise level monitoring data (Night Time)

Sr. No.	**Location**	**Permissible Limits, dBA**	**Values for the period May 17 – Oct 17**		
		70	**Min.**	**Max.**	**Avg.**
1	Near Main guest house	70	52	58	56
2	Near TSDF	70	54	59	57

<table>
<tr><td></td><td></td><td>
<table>
<tr><td>3</td><td>At Wyeth Colony</td><td>70</td><td>51</td><td>55</td><td>53</td></tr>
<tr><td>4</td><td>Gram Panchayat Hall</td><td>70</td><td>52</td><td>58</td><td>55</td></tr>
<tr><td>5</td><td>Near Main Office North site</td><td>70</td><td>51</td><td>57</td><td>54</td></tr>
<tr><td>6</td><td>ETP North site</td><td>70</td><td>58</td><td>61</td><td>60</td></tr>
<tr><td>7</td><td>Opposite shed D</td><td>70</td><td>54</td><td>62</td><td>59</td></tr>
<tr><td>8</td><td>ETP West site</td><td>70</td><td>52</td><td>62</td><td>58</td></tr>
<tr><td>9</td><td>Water tank Haria road</td><td>70</td><td>56</td><td>62</td><td>58</td></tr>
<tr><td>10</td><td>Near 66KVA substation</td><td>70</td><td>55</td><td>62</td><td>58</td></tr>
</table>
</td></tr>
<tr><td>viii</td><td>Training shall be imparted to all employees on safety and health aspects of chemicals handling.</td><td>Complied. Company is imparting training to all new employees as well as regular employees at regular intervals on safety and health aspects of chemicals handling. Safety precautions and hazards are also being communicated through display boards at appropriate places in the plants.</td></tr>
<tr><td></td><td>Pre-employment and routine periodical medical examination for all employees shall be undertaken on regular basis.</td><td>Complied. Pre medical checkup and routine medical checkup for the employees is being done on regular basis (Six monthly).

Data are submitted in below table :
<table>
<tr><th>Sr. No.</th><th>Month of Examination</th><th>Total No. of Employees</th></tr>
<tr><td>1</td><td>Quarter 1 (17-18)</td><td>1673</td></tr>
<tr><td>2</td><td>Quarter 2 (17-18)</td><td>870</td></tr>
</table>
</td></tr>
<tr><td>ix</td><td>Usage of PPE’s by employee/ workers shall be ensured.</td><td>Complied. Company have PPE policy in place and is strictly followed. Company is providing adequate PPEs to all the employees.</td></tr>
<tr><td>x</td><td>The project proponent shall also comply with all the environmental protection measures and safeguards proposed in project report submitted to the ministry.</td><td>Complied. Company has complied with all the environmental protection measures and safeguards proposed in the report apart from the recommendations made their in.</td></tr>
<tr><td></td><td>All the recommendation made in respect of environmental management and risk mitigation measures relating to the project shall be implemented.</td><td>Since ToR didn’t suggest for EIA or public hearing, no such recommendations mentioned. However, we are committed for healthy work environment and safe work practices.
However, Compliance to the recommendation made in respect of adequacy report</td></tr>
</table>

<table>
<tr>
<td></td>
<td></td>
<td>for the referred project is given below:
<table>
<tr><th>No.</th><th>Recommendation</th><th>Compliance</th></tr>
<tr><td>1</td><td>Liquid incinerator also to be refurbished.</td><td>Complied. However, We have been segregating high COD streams (COD >50000 ppm) and same is being taken for recovery to get economic benefit. Rest lean effluent of COD <2000 ppm is finally sent to ETP for treatment. Hence no incineration required for high COD wastewater.</td></tr>
<tr><td>2</td><td>Online pH and DO measuring arrangement in aeration tank</td><td>Complied. Online pH and DO monitoring available.</td></tr>
<tr><td>3</td><td>ETP lab should be equipped with auto sampler, auto titrator, COD digester etc.</td><td>Complied. Our ETP lab has 5 nos. of auto samplers for various stages sample collections. The lab also have COD digesters.</td></tr>
<tr><td>4</td><td>Explore possibility of more efficient mode of aeration</td><td>Complied. We have replaced our surface aerators with more efficient jet aerators.</td></tr>
<tr><td>5</td><td>Company shall initiate rain water harvesting projects</td><td>Complied. Company has recently constructed 6000 KL capacity pond to harvest rain water, which is the almost 75% of our per day requirement.</td></tr>
<tr><td>6</td><td>Change fuel (CNG) in Incinerator</td><td>Complied. We use CNG at our incinerator.</td></tr>
<tr><td>7</td><td>Auto pH control system at new Incinerator plant.</td><td>Complied. Auto pH control system installed and being working at new Incinerator plant.</td></tr>
</table>
(ref: comprehensive study report by Atmiya Institute of Technology, Rajkot 2010)</td>
</tr>
<tr>
<td>xi</td>
<td>The company will undertake all relevant measures for improving the socio economic condition for the surrounding area, CSR activities will be undertaken by involving local villages and administration:</td>
<td>Complied. Company is doing CSR activities through its Atul Rural Development Fund trust and is specially designed for up gradation of surrounding area and well fare of nearby localities. List of CSR activities carried out in nearby villages and schools is given below table :
<table>
<tr><th>No.</th><th>CSR activities during 17-18</th></tr>
<tr><td>1</td><td>16 blood camps organized in nearby villages, total 1263 bottles collected.</td></tr>
<tr><td>2</td><td>1 eye camp organized in nearby village, total 381 patients covered.</td></tr>
<tr><td>3</td><td>Distributed 12331 note books 2960 pencils, erasers, and ballpen etc. to students of 27 primary school students.</td></tr>
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<table>
<tr><td>4</td><td>Food Material supply to 80 students for Chhataralaya Mama Bhacha , every month including cooking facility.</td></tr>
<tr><td>5</td><td>Seva day was organized at Moti Koravad Ashramshala, Dharampur . Cloths and food material distributed to approx. 2200 tribal people and provided lunch thereafter.</td></tr>
<tr><td>6</td><td>Sanitation programme held at Umarsadi, Parnera , Survada, Atul and Sukesh ,Chanvai village 241 units completed in the year 2017-18.</td></tr>
<tr><td>7</td><td>Paver Block work at Haria, Navi Ori and Desaiwad street total exp. Rs. 5.96 lacs.</td></tr>
<tr><td>8</td><td>Road development work at Parnera Hillock, Atul Village total exp. Rs. 10.40 lacs.</td></tr>
<tr><td>9</td><td>Construction of compound wall at flood effected in 2015-16 at Muktidham Atul</td></tr>
<tr><td>10</td><td>Promotions of Sports activity through Ulhas Gymkhana (Inter Village Volley Ball tournament) exp. Rs. 2.29 Lacs.</td></tr>
<tr><td>11</td><td>14 programmes on vocational training arranged, 375 students attended.</td></tr>
</table>
The summary of expense occurred in CSR activities for last year is listed below:
<table>
<tr><th>Financial year</th><th>Amount (Rs. in lakhs)</th></tr>
<tr><td>2016-17 (actual)</td><td>660</td></tr>
<tr><td>2017-18 (budgeted)</td><td>750</td></tr>
</table>
</td>
</tr>
<tr>
<td>xii</td>
<td>The company shall undertake eco developmental measures including community welfare measures in the project area for the overall improvement of the environment.</td>
<td>Complied as mentioned in xi above.</td>
</tr>
<tr>
<td>xiii</td>
<td>A Separate environmental management cell equipped with full flagged laboratory facility shall be set up to carry out the environmental management and monitoring function.</td>
<td>Complied. Company is having separate Environmental Management Cell equipped with full-fledged laboratory facility to carry out the environment management and monitoring functions. Apart from this, one Environment Research Lab is also established for research work for the study of various aspects related to environment and its remedial measures. Organogram of Environment Health & Safety was already submitted vide our letter Atul/SHE/EC Compliance/06 dated 12.7.17. Company has developed a separate laboratory equipped with equipment such as pH meter, TDS meter, COD meter, Glass ware, gas chromatography system, and oven, muffle furnace, etc. to carry</td>
</tr>
</table>

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<tr><td></td><td></td><td>out testing of routine parameters. However sampling and testing is carried out by GPCB approved and company appointed consultant also. Currently the parameters measured in-house are pH, COD, TDS, MLVSS, and MLSS.</td></tr>
<tr><td>xiv</td><td>The project authorities shall earmark adequate funds to implement the conditions stipulated by the Ministry of Environment and Forest as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purposes.</td><td>Complied. EMP measures are implemented by 2010 and many things have already been at place.

Non recurring cost: Rs. 5.0 Cr
Recurring cost: A separate budget is being allocated every year to comply with all the legal requirement stipulated by SPCB, CPCB & MoEF apart from upkeep of pollution control systems and facilities. Total expenditure for the report period is given in below table.
<table>
<tr><th>Expenditure for months</th><th>Particular</th><th>Expenses Rs.</th></tr>
<tr><td rowspan="8">May- 2017 to October 2017 Including, recurring maintenance, modifications and monitoring.</td><td>Fuel</td><td>685121</td></tr>
<tr><td>Chemicals(Raw Material)</td><td>66509539</td></tr>
<tr><td>Electricity</td><td>26951192</td></tr>
<tr><td>Waste disposal</td><td>19107766</td></tr>
<tr><td>Salary</td><td>16153895</td></tr>
<tr><td>Maintenance & modifications</td><td>16653743</td></tr>
<tr><td>Monitoring</td><td>7466957</td></tr>
<tr><td>Total</td><td>153528213</td></tr>
</table></td></tr>
<tr><td rowspan="2">xv</td><td>A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zila parishad/Municipal Corporation. Urban local body and the local NGO, if any, from who suggestions/representation, if any, were received while processing the proposal.</td><td>Complied. Latest submission to the Panchayat, Zila parishad, District Industrial Centre was distributed on 11.11.2016. Copy of the same was submitted to Ministry vide our letter Atul/SHE/MoEF/Visit/3 dated 4.4.17.</td></tr>
<tr><td>The clearance letter shall also be put on the web site of the company by the proponent.</td><td>Complied. Available at company’s website at http://www.atul.co.in/sustainability/pdf/Atul-Environmental-Clearance-for-expansion-2009.pdf</td></tr>
<tr><td>xvi</td><td>The implementation of the project vis-à-vis</td><td>Complied. SPCB and MoEF is monitoring through their regular visits.</td></tr>
</table>

	environmental action plan shall be monitored by Ministry's Regional office at Bhopal / SPCB / CPCB.	
xvii	**The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at website of the Ministry of Environment and Forest at http://www.envfor.ni.in.**	We informed the public through advertisement and by sending our EC to local Panchayat, Zila parishad, District Industrial Centre for further actions at their end.
	This shall be advertised within seven days from the date of issue of the clearance letter at least in two local newspaper that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Ministry's Regional office at Bhopal.	Advertisement was published as directed and copy of the same was submitted to Ministry vide our letter dated 14.11.2009.
xviii	**The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closures and final approval of the project by the concerned authorities and the date of start of the project.**	**Complied**. Start date : May 2009 Completion date : May 2010 Final approval : We have obtained NOC and CCA from GPCB. Company has funded the project internally and hence not submitted the financial closure details.
8	**The Ministry may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.**	Noted.
9	**The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.**	Noted and will be complied.
10	**Any appeal against this Environment clearance shall lie with the national appellate authority, if**	Noted.

	preferred, within a period of 30 days as prescribed under section 11 of National Environment Appellate Authority Act, 1997.	
11	**The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 the Air ((Prevention and Control of Pollution) Act, 1981 the Environment (Protection) Act, 1986, Hazardous Wastes (Management, Handling and Transboundry movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.**	Noted.

Table 1 : Quality of treated effluent

Sr. No.	Parameter	Results						GPCB Limits
		May-17	Jun-17	Juy-17	Aug-17	Sep-17	Oct-17	
1	pH	7.1	7.2	7.5	7	7.2	7.5	5.5 to 9.0
2	Temperature ^{o}C	30	29	28	28	29	29	40 ^{o}C
3	Colour (pt. co. scale)in units	58	62	35	42	35	48	---
4	Suspended solids, mg/l	68	54	43	46	39	41	100
5	Phenolic Compounds, mg/l	0.5	0.7	0.2	0.7	0.2	0.5	5
6	Cyanides, mg/l	ND	ND	ND	ND	ND	ND	0.2
7	Fluorides, mg/l	ND	ND	ND	ND	ND	ND	2
8	Sulphides, mg/l	0.2	0.1	0.1	0.2	0.1	0.2	2
9	Ammonical Nitrogen, mg/l	36	38	28	16	22	36	50
10	Total Chromium, mg/l	0.2	0.1	0.02	0.01	0.02	0.01	2
11	Hexavelent Chromium, mg/l	ND	ND	ND	ND	ND	ND	1
12	BOD (3 days at 27^{o}C), mg/l	40	38	32	36	42	48	100
13	COD, mg/l	226	212	198	202	224	232	250
Note : ND is Not Detectable.								

Table 2 : Stack Monitoring Details

Sr. No.	Stack Details	Permissible Limits	Stack Height m	Paramenter	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value
Atul East Site																
1	Phosgene Plant	0.1 ppm	15	Phosgene	16/5/17	ND	7/6/17	ND	6/7/17	ND	4/8/17	ND	7/9/17	ND	5/10/17	ND
2	Dechlorination Plant	9.0 mg/Nm3	35	CI 2		Not Runnig During Visit	9/6/17	3.2	6/7/17	3.6	10/8/17	3.8	7/9/17	3.6	6/10/17	3.8
		20.0 mg/Nm3		HCI				5.1		5.4		5.2		5.6		6.1
3	Common stack of Hcl Sigri unit 1& 2	9.0 mg/Nm3	25	CI 2				2.8		2.6		2.8		3.1		4.1
		20.0 mg/Nm3		HCI				6.2		5.8		6.2		6.4		6.8
FCB																
4	Foul Gas Scubber	40.0 mg/Nm3	26.5	SO2		Not in use		Not in use		Not in use		Not in use		Not in use		Not in use
		25.0 mg/Nm3		NOx												
Sulfuric Acid (East Side)																
5	Sulfuric Acid plant	2.0 kg/T	30	SO2	17/5/17	0.6	14/6/17	0.5	8/7/17	0.6	4/8/17	0.7	4/9/17	0.6	7/10/17	0.8
		50.0 mg/Nm3		Acid Mist		6.3		7.2		6.8		6.6		6.7		7.5
6	ChloroSulfonic Acid plant reactor	9.0 mg/Nm3	11	CI 2		5.5		3.8		3.2		3.4		3.6		4.1
		20.0 mg/Nm3		HCI		5.4		5.8		5.2		5.6		5.9		6.3
Incinerator																
7	Incinerator	150.0 mg/Nm3	40	PM	10/5/17	26	21/6/17	28	14/7/17	26	12/8/17	24	15/9/17	28	12/10/17	31
		40.0 mg/Nm3		SO2		2.9		3.2		3.5		3.6		3.8		4.2
		25.0 mg/Nm3		Nox		11.8		12.8		11.2		10.8		11.2		10.8
NI Plant																
8	Foul Gas Scubber	40.0 mg/Nm3	26.5	SO2	22/5/17	5.8	21/6/17	6.1	14/7/17	5.6	12/8/17	5.3	15/9/17	5.6	13/10/17	5.9
		25.0 mg/Nm3		Nox		5.2		4.2		3.8		3.4		3.6		4.2
NBD Plant .																
9	Spray Dryer	150.0 mg/Nm3	21	PM		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
2-4-D Plant																
10	Chlorinator, 2,4 D plant	9.0 mg/Nm3	26.5	Cl2	19/5/17	2.6	15/6/17	2.2	21/7/07	2.6	19/8/17	2.4	27/9/17	3.1	17/10/17	4.6
		20.0 mg/Nm3		HCI		5.6		6.1		5.8		5.2		6.5		6.1
11	Chlorinator, 2,4 D plant	9.0 mg/Nm3	26.5	Cl2		3.6		3.4		3.1		3.8		3.4		3.8
		20.0 mg/Nm3		HCI		5.8		5.4		5.6		5.4		6.2		5.8
12	Chlorinator, 2,4 D plant	9.0 mg/Nm3	26.5	Cl2		3.4		3.2		3.4		3.1		3.4		3.6
		20.0 mg/Nm3		HCI		5.4		5.1		5.4		5.1		5.8		5.2
13	Chlorinator, 2,4 D plant	9.0 mg/Nm3	26.5	Cl2		3.2		3.6		3.8		3.2		3.6		3.1
		20.0 mg/Nm3		HCI		6.8		6.4		6.2		6.4		6.2		5.7
14	Chlorinator, 2,4 D plant	9.0 mg/Nm3	26.5	Cl2		3.6		3.1		2.8		2.7		2.9		3.2
		20.0 mg/Nm3		HCI		6.4		6.2		5.6		5.8		5.7		5.8
15	Common Scrubber; 2,4D Plant	9.0 mg/Nm3	5	Cl2		3.4		3.8		3.4		3.6		3.5		3.3
		20.0 mg/Nm3		HCI		6.2		5.8		5.4		5.7		5.4		5.7
16	Dryer-1	20.0 mg/Nm3	26.5	PM with Pesticide	18/5/17	6.8	14/6/17	6.4	22/7/17	5.8	18/8/17	5.2	13/9/17	5.5	16/10/17	6.2
17	Dryer-2	20.0 mg/Nm3	26.5	PM with Pesticide		7.2		7.8		6.2		5.8		5.2		4.8
18	Dryer-3	20.0 mg/Nm3	26.5	PM with Pesticide		5.6		6.8		5.4		6.2		6.8		5
19	Dryer-4	20.0 mg/Nm3	26.5	PM with Pesticide		5.8		7.2		6.8		6.8		7.2		6.5
20	Common Scrubber; 2,4D Plant	---	5	Phenol	19/5/17	ND	15/6/17	ND	21/7/07	ND	19/8/17	ND	27/9/17	ND	17/10/17	ND

CP Plant		Permissible Limits	Stack Height m	Paramenter	Date of Sampling	Obtained Value		Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value
21	MCPA	9 mg/NM^3	19	CL_2		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
		20 mg/NM^3		HCL												
		40 mg/NM^3		SO_2												
22	Fipronil	40 mg/NM^3	19	SO2		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
		20 mg/Nm3		HCL												
23	Imidacloprid	175 mg/Nm3	20	NH3		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
24	Pyrathroids	40 mg/Nm3	19	SO2		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
		20 mg/Nm3		HCL												
25	Stack at Amine Plant	175 mg/Nm3	5	NH3		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit	28/9/17	3.6	17/10/17	3.2
MPSL Plant																
26	Phosgene Scrubbr at MPSL	0.1 ppm	7	Phosgene	22/5/17	ND	21/6/17	ND	27/7/17	ND	24/8/17	ND	21/9/17	ND	18/10/17	ND
27	Central Scrubber at MPSL	0.1 ppm	7	Phosgene		ND		ND		ND		ND		ND		ND
NICO Plant																
28	Central scrubber at Nico Plant	---	12	Acetonytryle, IPA		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
Ester Palnt																
29	Scrubber at Ester plant for Glyphosate	10 mg/Nm3	12	Formaldehyde		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
30	Central Scrubber MCPA Plant	20 mg/Nm3	19	HCL												
Atul West Site																
31	Shed A7/14/41 Reaction pan/ D tank	2.0 mg/Nm3	19	Bromine		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
		25.0 mg/Nm3		NOx												

		Permissible Limits	Stack Height m	Paramenter	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value
32	Shed B2/12/24 Reaction Vessel	9.0 mg/Nm3	19	Cl2	4/5/17	4.8	16/6/17	4.6	13/7/17	4.2	25/8/17	4.5	21/9/17	4.8	18/10/17	5.2
		20.0 mg/Nm3		HCl		5.6		5.2		4.9		5.2		5.6		4.6
33	Shed C5/20/15 Chlorinator	9.0 mg/Nm3	19	Cl2	5/5/17	5.4	22/6/17	5.1		5.3		5.1	22/9/17	4.9	18/10/17	5.6
		20.0 mg/Nm3		HCl		5.2		5.5		5.8		6.2		5.4		4.3
34	Shed D Niro Spray dryer No.45	150.0 mg/Nm3	19	PM	4/5/17	4.6	23/6/17	4.4	15/7/17	4.6	11/8/17	4.2	22/9/17	6.5	26/10/17	6.3
35	Shed D Niro Spray dryer No. 50	150.0 mg/Nm3	19	PM		5.3		5.6		5.2		5.8		6.2		5.7
36	Shed E 7/12/49 Spray Dryer	150.0 mg/Nm3	19	PM	11/5/17	5.7	15/6/17	5.2	21/7/17	5.8	26/8/17	6.8	23/9/17	7.5	26/10/17	7.1
37	Shed F 6/1/15 Reaction Vessel	9.0 mg/Nm3	19	Cl2	12/5/17	5.3	23/6/17	4.8		4.4		4.8		5.2	18/10/17	5.8
		20.0 mg/Nm3		HCl		6.2		5.2		5.6		5.2		5.8		6.4
38	Shed G 10/8/1 (receiver)	9.0 mg/Nm3	19	Cl2		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
		20.0 mg/Nm3		HCl												
39	Shed H 1/6/17 Chlorinator	9.0 mg/Nm3	19	Cl2	22/5/17	4.2	28/6/17	4.6	22/7/17	4.8		Not Runnig During Visit	22/9/17	1.8	18/10/17	2.1
		20.0 mg/Nm3		HCl		5.6		5.2		5.6				3.5		4.1
40	Shed K K-13/3/4 Final of Sulfuric acid plant	2.0 kg/T	19	SO2	23/5/17	0.6		0.5		0.6	31/8/17	0.8	22/9/17	0.6	26/10/17	0.8
		50.0 mg/Nm3		Acid Mist		5		4		5		8		7		9
Atul North Site																
41	N-FDH Plant Catalytic Incinerator	150.0 mg/Nm3	31.5	PM	29/5/17	19	21/6/17	17	20/7/17	18	24/8/17	15	13/9/17	19	5/10/17	22
		40.0 mg/Nm3		SO2		6.8		6.2		6.3		6.2		6.8		6.2
		25.0 mg/Nm3		Nox		5.4		5.1		5.4		5.1		5.6		5.1
		10.0 mg/Nm3		Formaldehyde		ND		ND		ND		ND		ND		ND
42	PHIN Plant	0.1 ppm	15.5	Phosgene	30/5/17	ND	8/6/17	ND		ND	17/8/17	ND	5/9/17	ND	26/10/17	ND
43	DCDPS Plant	---	30	SO3		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
44	DDS Plant	175 mg/Nm3	20	NH3	28/12/2016	Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
45	SPIC II Plant	---	30	SO3	29/5/17	2.4	9/6/17	2.1	20/7/17	2.6	17/8/17	-	5/9/17	2.6	26/10/17	3.1
46	SPIC I Plant	175 mg/Nm3	30	NH3	30/5/17	3.1		2.9		3.2		3.1		3.5	27/10/17	4.3

Details of Flue gas stack		Permissible Limits	Stack Height m	Paramenter	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value
East site																
1	FBC boiler El	150.0 mg/Nm3	34	SPM	23/5/17	35	28/6/17	33	27/7/17	32	30/8/17	35	20/9/17	37	27/10/17	39
		100 ppm		SO2		31		28		26		36		36		37
		50 ppm		Nox		33		31		29		31		39		33
2	FBC boiler E2	150.0 mg/Nm3	34	SPM		32		36		34		31		35		35
		100 ppm		SO2		30		32		30		33		36		34
		50 ppm		Nox		32		35		33		35		38		36
3	FBC boiler No.3	150.0 mg/Nm3	50	SPM		36		32		35		38		34		33
		100 ppm		SO2		33		30		28		31		33		31
		50 ppm		Nox		35		33		32		34		36		37
4	Hot Oil Unit (Resorcinol Plant)	150.0 mg/Nm3	32.5	SPM		ND		ND		ND		ND		ND		ND
		100 ppm		SO2		ND		ND		ND		ND		ND		ND
		50 ppm		Nox		29		26		28		26		28		30
West Site																
5	FBC boiler W1	150.0 mg/Nm3	45	SPM	24/5/17	34	29/6/17	32	28/7/17	31	18/8/17	34	21/9/17	36	28/10/17	38
		100 ppm		SO2		31		29		28		31		32		34
		50 ppm		Nox		36		33		33		35		38		36
6	Coal fired Boiler W1	150.0 mg/Nm3	35	SPM		Discarded		Discarded		Discarded		Discarded		Discarded		Discarded
		100 ppm		SO2												
		50 ppm		Nox												
7	Coal fired boiler W2	150.0 mg/Nm3	35	SPM		Discarded		Discarded		Discarded		Discarded		Discarded		Discarded
		100 ppm		SO2												
		50 ppm		Nox												
8	Hot Oil Plant shed-B	150.0 mg/Nm3	19	SPM	24/5/17	ND	29/6/17	ND	28/7/17	ND	18/8/17	ND	21/9/17	ND	28/10/17	ND
		100 ppm		SO2		ND		ND		ND		ND		ND		ND
		50 ppm		Nox		26		24		24		26		29		31
9	Oil burner Shed B (Standby)	150.0 mg/Nm3	17	SPM		STAND BY		STAND BY		STAND BY		STAND BY		STAND BY		STAND BY
		100 ppm		SO2												
		50 ppm		Nox												
10	Boiler (50 TPH 2 Nos)	50.0 mg/Nm3	108	PM	29/5/17	38	24/6/17	35	29/7/17	34	5/8/17	32	23/9/17	38	7/10/17	40
		100 ppm		SO2		35		32		30		35		35		38
		50 ppm		Nox		36		34		28		31		37		36
		--		Mercury		ND		ND		ND		ND		ND		ND
11	DG set 1500 KVA (Standby)	150.0 mg/Nm3	12	SPM		STAND BY		STAND BY		STAND BY		STAND BY		STAND BY		STAND BY
		100 ppm		SO2												
		50 ppm		Nox												
North Site																
12	Thermic fluid heater of DCO/DAP Plant	150.0 mg/Nm3	12	SPM	18/5/17	45		42	29/7/17	40	31/8/17	38	21/9/17	37	28/10/17	39
		100 ppm		SO2		34		32		34		36		34		36
		50 ppm		NOx		31		29		31		32		36		34

Table 3 : Ambient Air Monitoring details

Station	Parameter	Limit microgm/NM3	**May-17**	**Jun-17**	**Juy-17**	**Aug-17**	**Sep-17**	**Oct-17**
66 KV	PM 2.5	60	28	26	22	27	26	29
	PM10	100	57	52	48	56	59	58
	SO2	80	10.8	9.2	8.2	56	8.6	9.2
	NOx	80	11.8	10.6	11.2	9.5	9.8	9.6
	Ammonia	850	0	0	0	10.2	0	0
	HCl	200	0	0	0	0	4.8	5.6
Opposite Shed D	PM 2.5	60	35	33	29	27	29	31
	PM10	100	59	56	54	52	49	51
	SO2	80	10.4	11.2	10.6	10.4	10.8	10.4
	NOx	80	12.2	13.6	11.2	11.4	11.8	11.2
	Ammonia	850	16.4	15.4	13.4		14.4	18.2
	HCl	200	0	0	0	0	0	0
Near West site ETP	PM 2.5	60	32	36	31	32	34	38
	PM10	100	54	58	51	56	53	58
	SO2	80	11.2	10.8	10.2	10.8	10.2	11.2
	NOx	80	13.2	12.6	12.4	12.2	12.6	12.8
	Ammonia	850	0	0	0	0	0	0
	HCl	200	0	0	0	0	0	0
Near North ETP	PM 2.5	60	37	35	33	30	31	33
	PM10	100	56	53	49	54	56	53
	SO2	80	10.6	10.8	9.6	10.4	9.6	9.8
	NOx	80	12.4	13.6	10.6	1.4	10.8	10.6
	Ammonia	850	13.4	14.6	12.5		11.2	13.8
	HCl	200	0	0	0	0	0	0

TSDF	PM 2.5	60	35	38	30	35	38	37
	PM10	100	52	56	55	58	59	59
	SO2	80	11.6	12.2	9.6	11.2	11.8	10.6
	NOx	80	13.4	14.6	13.2	12.4	13.4	11.4
	Ammonia	850	0	0	0	0	0	0
	HCl	200	0	0	0	0	0	0
Main Guest House	PM 2.5	60	20	23	21	20	22	28
	PM10	100	49	51	48	45	49	52
	SO2	80	10.2	10.8	10.4	10.2	10.4	11.2
	NOx	80	11.6	11.2	11.6	11.2	10.8	12.6
	Ammonia	850	0	0	0	0	0	0
	HCl	200	0	0	0	0	0	0
Wyeth Colony	PM 2.5	60	22	20	24	22	27	26
	PM10	100	51	46	52	49	52	54
	SO2	80	10.4	9.2	11.4	8.6	9.4	9.3
	NOx	80	10.8	10.4	12.8	9.2	10.6	11.2
	Ammonia	850	0	0	0	0	0	0
	HCl	200	0	0	0	0	0	0
Gram panchayat hall	PM 2.5	60	21	22	26	23	25	26
	PM10	100	46	50	51	48	49	54
	SO2	80	9.2	9.6	10.2	9.3	9.8	9.3
	NOx	80	9.6	10.8	11.4	10.6	10.4	11.2
	Ammonia	850	0	0	0	0	0	0
	HCl	200	0	0	0	0	0	0
Main office, North site	PM 2.5	60	27	25	23	26	28	35
	PM10	100	58	56	47	50	56	59
	SO2	80	12.3	12.8	9.6	10.8	11.2	12.4
	NOx	80	13.4	13.1	10.2	11.4	12.2	13.2
	Ammonia	850	0	0	0	0	0	0

	HCl	200	0	0	0	0	0	0
Haria water tank	PM 2.5	60	22	20	26	24	24	28
	PM10	100	42	46	38.2	49	46	52
	SO2	80	7.2	6.4	7.9	9.3	6.2	7.2
	NOx	80	10.8	9.8	8.8	10.2	7.6	8.4
	Ammonia	850	0	0	0	0	0	0
	HCl	200	0	0	0	0	0	0

Table 4 : Fugitive Emission Monitoring details

Plant	**Area**	**Parameter**	**Prescribed Limit**	**Results of VOCs in Milligram per NM³**					
				May-17	**Jun-17**	**Juy-17**	**Aug-17**	**Sep-17**	**Oct-17**
2,4 D	Reactor	Phenol	19	0.096	7	8.2	9.1	5.4	12.6
	Buffer tank	Chlorine	3.0	0.148	0.152	0.18	0.144	0.85	1.1
Resorcinol	Benzene storage tank area near vent	Benzene	15	1.27	0.8	1.1	1.4	2.8	1.7
	Near Extraction/scrubber unit	Butyl acetate	-	ND	ND	0.06	0.05	0.12	0.17
Pharma	At second floor work area	Ammonia	0.8	0.81	0.44	0.68	0.55	1.2	2.1
	Ammonia recovery area	Ammonia	0.8	0.69	3.8	5.2	4.3	3.8	1.9
Epoxy - I	At vacuum pump 2nd floor	ECH	10	8.71	7.55	8.1	9.1	7.6	3.8
	At vessel POS 1208 G.F	ECH	10	8.66	8.78	5.2	7.6	6.9	5.2
Shed H	At second floor work area	Nitrobenzene	5	3.76	3.426	1.8	2.3	2.7	1.7
Shed J	Buffer Tank	Chlorine	3	0.128	0.182	0.32	0.21	0.84	1.1

Table 5 : Noise level monitoring data (Day Time)

Sr. No.	Location	Noise Level, dBA						Permissible Limits, dBA
		May-17	Jun-17	Juy-17	Aug-17	Sep-17	Oct-17	75
1	Near Main guest house	58	60	62	61	63	65	75
2	Near TSDF	62	63	61	63	62	67	75
3	At Wyeth Colony	61	58	59	60	60.4	62	75
4	Gram Panchayat Hall	59	62	63	58	59	61	75
5	Near Main Office North site	63	57	58	59	57	59	75
6	ETP North site	67	65	66	65	64	62	75
7	Opposite shed D	66	68	64	63	62	64	75
8	ETP West site	68	66	63	61	63	62	75
9	Water tank Haria road	64	64	67	68	66	65	75
10	Near 66KVA substation	59	61	64	67	64	61	75

Table 6 : Noise level monitoring data (Night Time)

Sr. No.	Location	Noise Level, dBA						Permissible Limits, dBA
		May-17	Jun-17	Juy-17	Aug-17	Sep-17	Oct-17	70
1	Near Main guest house	52	55	56	58	56	58	70
2	Near TSDF	56	57	57	59	57	54	70
3	At Wyeth Colony	54	53	54	55	52	51	70
4	Gram Panchayat Hall	52	57	58	56	54	53	70
5	Near Main Office North site	57	52	53	51	53	56	70
6	ETP North site	61	60	59	58	61	58	70
7	Opposite shed D	60	62	60	56	59	54	70
8	ETP West site	62	61	57	55	58	52	70
9	Water tank Haria road	57	58	62	57	56	59	70
10	Near 66KVA substation	56	55	58	62	61	57	70

ENVIRONMENTAL AUDIT REPORT

FOR AUDIT PERIOD
APRIL-2016
TO
MARCH-2017

Industry

M/s. ATUL LIMITED.,
ATUL-396020, DIST: VALSAD.

Auditor
SHROFF S R ROTARY INSTITUTE OF CHEMICAL TECHNOLOGY (SRICT)
Block No. 402, At & Post Vataria, Dist. Bharuch.

ANNEXURE – 19
COMPLIANCE REPORT AND CASE/COMPLAIN

Detail		Has valid consent/ authorization	Complying with standards and other Conditions
(A)	Compliance Report of water as per Water Act, 1974: If NO, comment:	Yes. Consent is valid up to 03.11.2019	Complied
(B)	Compliance Report for Air as per Air Act, 1981: If NO, comment		Complied
(C)	Compliance Report for the storage and handling of hazardous waste/chemicals under The Hazardous Waste (Management and Handling and trans boundary Movement) Rule, 2008 & EPA-86 If NO, comment:		Complied

Atul Limited

Project: Expansion of agro-chemicals (Pesticides/Herbicides) and bulk drug and pharmaceuticals manufacturing unit
EC Compliance Report for the period May 2017 – October 2017 to EC F. No. J -11011/48/2003-IA II (I) dated 20.02.2004.

<table>
<tr><th>No.</th><th>Condition</th><th>Compliance</th></tr>
<tr><td colspan="3">A. Specific Conditions :</td></tr>
<tr><td>i</td><td>The gaseous emissions (SO_2, NOx, and HCl) and particulate matters from various process units should confirm to the standards prescribed by the concerned authorities from time to time.</td><td>Complied. The gaseous emissions (SO_2, NOx, and HCl) and particulate matters from various process units confirms to the standards prescribed by GPCB through CCA.

Details are given in below Table:

<table>
<tr><th rowspan="2">No.</th><th rowspan="2">Parameter</th><th rowspan="2">Standard values as per CCA</th><th rowspan="2">Unit</th><th colspan="3">Values for the period May 17 – Oct 17</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>1</td><td>SO_2</td><td>40</td><td>mg/Nm^3</td><td>2.9</td><td>6.8</td><td>5.2</td></tr>
<tr><td>2</td><td>SO_2 (kg/T)</td><td>2</td><td>kg/T</td><td>0.5</td><td>0.8</td><td>0.6</td></tr>
<tr><td>3</td><td>NOx</td><td>25</td><td>mg/Nm^3</td><td>3.4</td><td>12.8</td><td>6.9</td></tr>
<tr><td>4</td><td>HCl</td><td>20</td><td>mg/Nm^3</td><td>3.5</td><td>6.8</td><td>5.7</td></tr>
<tr><td>5</td><td>PM</td><td>150</td><td>mg/Nm^3</td><td>4.2</td><td>45</td><td>25.2</td></tr>
<tr><td>6</td><td>PM with Pesticide compound</td><td>20</td><td>mg/Nm^3</td><td>4.8</td><td>7.8</td><td>6.2</td></tr>
</table>

Details of stack results for the compliance period is given in Table 1. (Pl. see pg. no. 15)</td></tr>
</table>

<table>
<tr><td></td><td>At no time, the emission levels should go beyond the stipulated standards.</td><td>Complied. Monthly monitoring is being done by GPCB approved, NABL approved agencies namely M/s. Royal Environment Auditing & Consultancy Service, Rajkot and Clean Enviro Projects Consultancy Pvt. Ltd, Valsad.
At no time, the emissions exceeded the prescribed limits during report period.
The maximum values during the compliance period confirms that at no time the emission level went beyond the stipulated standards. Parameter wise summary is given below:

<table>
<tr><th rowspan="2">No.</th><th rowspan="2">Parameter</th><th rowspan="2">Standard values as per CCA</th><th rowspan="2">Unit</th><th colspan="3">Values for the period May 17 – Oct 17</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>1</td><td>SO_2</td><td>40</td><td>mg/Nm^3</td><td>2.9</td><td>6.8</td><td>5.2</td></tr>
<tr><td>2</td><td>SO_2 (kg/T)</td><td>2</td><td>kg/T</td><td>0.5</td><td>0.8</td><td>0.6</td></tr>
<tr><td>3</td><td>NOx</td><td>25</td><td>mg/Nm^3</td><td>3.4</td><td>12.8</td><td>6.9</td></tr>
<tr><td>4</td><td>HCl</td><td>20</td><td>mg/Nm^3</td><td>3.5</td><td>6.8</td><td>5.7</td></tr>
<tr><td>5</td><td>PM</td><td>150</td><td>mg/Nm^3</td><td>4.2</td><td>45</td><td>25.2</td></tr>
<tr><td>6</td><td>PM with Pesticide compound</td><td>20</td><td>mg/Nm^3</td><td>4.8</td><td>7.8</td><td>6.2</td></tr>
</table></td></tr>
<tr><td></td><td>In the event of failure of pollution control system(s) adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency.</td><td>Complied. No such case happened during compliance period.</td></tr>
<tr><td>ii</td><td>Ambient air quality monitoring Station should be set up in down wind direction as well as where max. ground level concentration of SPM anticipated in consultation with the state pollution control board.</td><td>Complied. 10 Ambient air quality monitoring Station have been set up in down wind direction as well as where max. ground level concentration of SPM anticipated in consultation with GPCB. The same had been shown to authority like SPCB, CPCB & MoEF during their visit to our factory.

List of our ambient air monitoring station is given below:
<table>
<tr><th>No.</th><th>Location</th></tr>
<tr><td>1</td><td>66 KVA GEB substation</td></tr>
</table></td></tr>
</table>

2	Opposite Shed D		
3	Near ETP (West Site)		
4	ETP Plat (North site)		
5	Near TSDF		
6	Near Main Guest House		
7	At Wyeth Colony		
8	Gram panchayat hall		
9	Near Main office, North site		
10	Water tank at Haria Road		

iii **Fugitive emission in work zone environment, product, raw material storage areas must be regularly monitored.**

Complied. Fugitive emissions in the work zone environment and raw material storage area is being regularly monitored by NABL approved third party.

The maximum values during the compliance period confirms that at no time the emission level went beyond the stipulated standards. Parameter wise summery is given below:

Plant	**Area**	**Parameter**	**Prescribed Limit**	**Values of VOCs in Milligram per NM³ for the period May 17 – Oct 17**		
				Min.	**Max.**	**Avg.**
2,4 D	Reactor	Phenol	19	0.10	12.60	7.07
	Buffer tank	Chlorine	3	0.14	1.10	0.43
Resorcinol	Benzene storage tank area near vent	Benzene	15	0.80	2.80	1.51
	Near Extraction /scrubber unit	Butyl acetate	-	0.00	0.17	0.08

		Pharma	At second floor work area	Ammonia	0.8	0.44	2.10	0.96
			Ammonia recovery area	Ammonia	0.8	0.69	5.20	3.28
		Epoxy - I	At vacuum pump 2nd floor	ECH	10	3.80	9.10	7.48
			At vessel POS 1208 G.F	ECH	10	5.20	8.78	7.06
		Shed H	At second floor work area	Nitrobenzene	5	1.70	3.76	2.61
		Shed J	Buffer Tank	Chlorine	3	0.13	1.10	0.46

Results for the compliance period is given in **Table 2.** (Pl. see pg. no. 19)

The company should install alkali scrubbers for scrubbing of HCl.	**Complied**. Alkali scrubbers for scrubbing of HCl have been installed. In fact we have installed dual scrubbing system i.e. combination of caustic and water scrubber system for scrubbing of HCl in majority of plants like 2,4 D plant, Shed C, Shed F, Shed H etc.
pH of the scrubber tank should be monitored regularly.	**Complied**. pH of the scrubber tank is monitored regularly and logged. It is a regular operating practice.
Liquid effluent generated from the scrubber should be sent to effluent treatment plant.	**Complied**. Liquid effluent generated from the scrubber is being sent to ETP along with plant effluent stream.
All the process equipment/reaction vessels should be connected with central exhaust system.	**Complied**. Central exhaust system has been provided at strategic locations and the critical operations evolving the hazardous gases are routed through multiple stage scrubbing system.
Further measures should be taken to reduce the losses of solvents.	**Complied**. Reactors are connected to chilled brine condenser system. Breather valves have been provided to all solvent storage tanks.
Cooling arrangement should be made for all the solvent storage tanks to minimize evaporation losses.	**Complied**. Our Most of solvent storage tanks are underground. All the storage tanks are in close loop which is connected to condenser to minimize evaporation losses.

<table>
<tr><td></td><td>The company should monitor VOCs from the incinerator and data submitted regularly to SPCB and Ministry of Environment and forests.</td><td>Complied. Incinerator stack has been regularly monitored and data submitted regularly to GPCB and MoEF through six monthly EC compliance report. Details of stack results for the compliance period is given in Table 1. (Pl. see pg. no. 15)</td></tr>
<tr><td>iv</td><td>The effluent generation should not exceed 1191 m3/day (936 m3/d of process effluent and 255 m3/d of domestic effluent).</td><td>Complied. However, since we have another EC granted in 2009 for expansion, we request to consider latest figures given in same.
According to specific condition No. i) of EC F No. J 11011/85/2009 IA II (I) dated 13.05.2009, Industrial Waste water generation shall not exceed 17,283 m^3/d.
The average wastewater generation for the report period is 7841 m^3/day only. Detail break up is given below:
<table>
<tr><th>Wastewater generation m^3/day</th><th>May-17</th><th>Jun-17</th><th>Juy-17</th><th>Aug-17</th><th>Sep-17</th><th>Oct-17</th><th>Total</th></tr>
<tr><td>Month wise</td><td>252740</td><td>235340</td><td>190201</td><td>224370</td><td>233190</td><td>307040</td><td>1442881</td></tr>
<tr><td>Per day</td><td>8153</td><td>7845</td><td>6136</td><td>7238</td><td>7773</td><td>9905</td><td>Avg. 7841</td></tr>
</table>
The maximum values during the compliance period confirms that at no time the wastewater generation went beyond the stipulated standards. Summary is given below:
<table>
<tr><th rowspan="2">Wastewater generation</th><th rowspan="2">Stipulated value</th><th colspan="3">Values for the period May 17 – Oct 17</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>Wastewater generation m^3/d</td><td>17283</td><td>6136</td><td>9905</td><td>7841</td></tr>
</table></td></tr>
<tr><td></td><td>The effluent should be segregated at source of generation.</td><td>Complied. Concentrated effluent is segregated and chemicals are being retrieved through recovery process/distillation.</td></tr>
<tr><td></td><td>The Concentrated effluent stream should be incinerated and non-concentrated effluent after tertiary treatment should be discharged into the CETP.</td><td>Complied. Among the referred expansion project, only one stream from 2, 4 D is concentrated. We have installed distillation plant where the stream is distilled and product so obtained are sold. After recovery of product, lean effluent is sent to ETP where it is treated without any difficulty. Hence no incineration is required.</td></tr>
</table>

	The treated effluent should be discharged into estuary zone of river Par through 4.0 km long HDPE pipe line only after it meets the standards stipulated by the Gujarat Pollution Control Board/EPA rules.	**Complied**. The discharged effluent is meeting all state pollution control board limits and values of various parameters of treated effluent is given in **Table 3**. (Pl. see pg. no. 20) Apart from the same, we have carried out EIA study of river Par in 2009 & 2015. The maximum values during the compliance period confirms that at no time the emission went beyond the stipulated standards. Summary is given below:

Sr. No.	**Parameter**	**Norms**	**Values for the period May 17 – Oct 17**		
			Min.	**Max.**	**Avg.**
1	pH	5.5-9.0	7	7.5	7.3
2	Temperature	40 deg C	28	30	28.8
3	Colour (pt. co. scale)in units	---	35	62	46.7
4	Suspended solids	100 mg/l	39	68	48.5
5	Phenolic Compounds	5 mg/l	0.2	0.7	0.5
6	Cyanides	0.2 mg/l	0	0	0
7	Fluorides	2 mg/l	0	0	0
8	Sulphides	2 mg/l	0.1	0.2	0.2
9	Ammonical Nitrogen	50 mg/l	16	38	29.3
10	Total Chromium	2 mg/l	0.01	0.2	0.1
11	Hexavalent Chromium	1 mg/l	0	0	0
12	BOD (3 days at 27^{o}C)	100 mg/l	32	48	39.3
13	COD	250 mg/l	198	232	215.7

<table>
<tr><td></td><td>The domestic waste water should be disposed off through septic tank / soak pit system.</td><td>Complied. Domestic waste water goes to septic tank and subsequently in to ETP for further treatment.
Detail of Domestic effluent generation is given in below table:

<table>
<tr><th>Domestic Wastewater generation m³</th><th>May-17</th><th>Jun-17</th><th>Juy-17</th><th>Aug-17</th><th>Sep-17</th><th>Oct-17</th><th>Total</th></tr>
<tr><td>Month wise</td><td>11234</td><td>10458</td><td>9912</td><td>9731</td><td>10229</td><td>13167</td><td>64730</td></tr>
<tr><td>Per day</td><td>362</td><td>349</td><td>320</td><td>314</td><td>341</td><td>425</td><td>352 (Avg.)</td></tr>
</table>

The maximum, minimum and average values are given below:

<table>
<tr><th rowspan="2">Domestic Wastewater generation</th><th colspan="3">Values for the period May 17 – Oct 17</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>Domestic Wastewater generation m³/d</td><td>314</td><td>425</td><td>352</td></tr>
</table>
</td></tr>
<tr><td>v</td><td>The Company should also Set up a separate online fish pond using treated effluent, to ensure that the quality of treated effluent discharged into the par estuary does not have any adverse impact on the aquatic life.</td><td>Complied. We have set up a separate online fish pond using treated effluent at our ETP.</td></tr>
<tr><td></td><td>The effluent quality at the discharge point must also be monitored periodically by an independent agency authorized by CPCB and report of the independent agency should be submitted to the Ministry's Regional office at Bhopal/CPCB/GPCB</td><td>Complied. The effluent quality at the ETP discharge point is regularly being monitored by the Environmental auditors appointed by GPCB.

GPCB also monitor the treated effluent quality at regular intervals. Recent monitoring results of GPCB is attached as Annexure A.

The river water quality at the discharge point is regularly being monitored by GPCB. Agencies like Pollucon Laboratories Pvt. Ltd- MoEF approved agency, Envision Enviro Technologies Pvt. Ltd- NABET accredited have also done the monitoring in 2009 & 2105 respectively. Relevant extracts from latest reports were submitted to Ministry vide our letter Atul/SHE/MoEF/Visit/3 dated 4.4.17.</td></tr>
<tr><td>vi</td><td>As reflected in the EIA/EMP report, the solid waste and ETP sludge should be incinerated</td><td>Complied. ETP waste is disposed into our TSDF instead of incineration for which we have taken permission from MoEF vide letter dated 6.5.04 and</td></tr>
</table>

<table>
<tr><td></td><td>and incinerator ash should be disposed off in the landfill facility within the plant premises.</td><td>same is also approved by GPCB through our CCA. We also send our incinerable waste for co-processing as per GPCB approval given through our CCA.</td></tr>
<tr><td></td><td>The ground water quality in and around the unit and the hazardous waste storage site should be regularly monitored and the data recorded to ensure that there is no contamination of the groundwater.</td><td>Complied. Ground water quality is being checked regularly for in and around the unit and the hazardous waste storage site. Latest GPCB Groundwater analysis report is attached as Annexure B.</td></tr>
<tr><td>vii</td><td>The destructive efficiency of the incinerator should be assessed by an agency like CPCB and a report submitted to the Ministry.</td><td>Complied. The destructive efficiency of the incinerator was assessed by M/s. SGS, a reputed agency in field on environmental monitoring. Report already submitted vide our letter Atul/SHE/MoEF/Visit/3 dated 4.4.17.</td></tr>
<tr><td>viii</td><td>The company should comply with the provisions of coastal Regulation Zone Notification of 1991 and Coastal Zone Management Plan of Gujarat.</td><td>Complied.</td></tr>
<tr><td></td><td>Further, specific conditions stipulated by the Forest and Environment Department, Government of Gujarat vide its letter No. ENV-1097-2942-P dated 27th January, 1998 for laying of pipe line for discharge of treated effluents through the estuary zone of the River Par Zone should be strictly adhered to.</td><td>Complied. Detailed compliance report is already submitted to the Ministry vide our letter our letter Atul/SHE/MoEF/Visit/3 dated 4.4.17.</td></tr>
<tr><td>ix</td><td>Occupational Health Surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.</td><td>Complied. Occupational health surveillance of the workers is being done on regular basis and record maintained as per the factory act which is shown in below table:

<table><tr><th>Sr. No.</th><th>Month of Examination</th><th>Total No. of Employees</th></tr><tr><td>1</td><td>Quarter 1 (17-18)</td><td>1673</td></tr><tr><td>2</td><td>Quarter 2 (17-18)</td><td>870</td></tr></table></td></tr>
<tr><td>x</td><td>The company should develop rainwater harvesting structures to the harvest the run off water from the rooftops and by laying a separate storm water drains system for</td><td>Complied. Company has recently constructed 6000 KL capacity pond to harvest rain water, which is the almost 75% of our per day requirement. We are creating facility/ capacity to cater our consumption with rain harvested water with zero river drawls of water during the rainy days. Besides this, there are three check dams and pumping facility to harvest rain water. We</td></tr>
</table>

	recharge of ground water and to reduce the drawl from the river Par.	are also constructing temporary sand bag dam on top of dam towards the end of monsoon to store additional free flowing rain water in river Par.
xi	**The project authorities may undertake a survey to assess the impact of gaseous emissions/pollutants on the health including respiratory and digestive system of the population within and vicinity of the plant and report submitted to the State Government and to this Ministry within six months.**	**Complied**. The survey was carried out to assess the impact of emission/pollutants on the health including respiratory & digestive systems of population within & vicinity of the plant. So far no major illness have been identified. Report submitted vide our letter ref. Atul/MoEF/Reg/4 dated 16.8.04.
xii	**The Company should developed a green belt in an 25% of the plant area as per the CPCB guidelines.**	**Complied**. Company has developed green belt and dense plantation inside the factory in area more than 33 % of total land. Company is having green belt development plan and planting more than about 50000 plants per year on regular basis.
xiii	**As per the policy decision taken vide this Ministry's circular no. J-21011/8/98- IA II (I) dated 14th May 2002 and 23rd June, 2003, the company shall earmark a separate fund i.e. 1% of the total cost of the project (Rs. 25 Crores) for eco-development measures including community welfare measures in the project area.**	**Complied**. We had submitted the Eco fund earmarked for eco development to GPCB with an intimation to MoEF vide our letter NRK/ECC/GPCB/3 dated 17.05.2004. Action plan related to Eco-fund also made as per process and communicated to authority wide our letter Atul/ECC/GPCB/ECO-fund/2 dated 2.11.2004. Copy of same again submitted to Ministry vide our letter Atul/SHE/MoEF/Visit/3 dated 4.4.17.
	The amount shall be deposited within three months in a separate account to be maintained by GPCB.	**Complied**. We had submitted the Eco fund earmarked for eco development to GPCB with an intimation to MoEF vide our letter NRK/ECC/GPCB/3 dated 17.05.2004.
	The plans in this regard should be submitted to the SPCB as well as to the Ministry within three months of issue of this letter.	**Complied**. Action plan related to Eco-fund also made as per process and communicated to authority vide our letter Atul/ECC/GPCB/ECO-fund/2 dated 2.11.2004.
	After approval of the action plan by GPCB, the amount deposited will be released to the project authorities in two installments based on the progress of implementation.	**Complied**.

<table>
<tr><td colspan="3">B. General Conditions</td></tr>
<tr><td>i</td><td>The project authorities must strictly adhere to stipulations made by GPCB.</td><td>Complied. The company adheres to the compliances and has not exceeded the stipulation. This has been certified by our Environmental auditors, an authorized agency and nominated by GPCB; through Environmental audit every year.
Latest compliance report by GPCB appointed Environmental auditor Shroff S R Rotary Institute of Chemical Technology, Vatariya, Dist. Bharuch for year 16-17 is attached as Annexure C.</td></tr>
<tr><td rowspan="2">ii</td><td>At no time, the emissions should not go beyond standards.</td><td>Complied. Monthly monitoring is being done by NABL approved third party. At no time, the emissions exceeded the prescribed limits during report period.

The maximum values during the compliance period confirms that at no time the emission level went beyond the stipulated standards. Parameter wise summary is given below:
<table>
<tr><th rowspan="2">No.</th><th rowspan="2">Parameter</th><th rowspan="2">Standard values as per CCA</th><th rowspan="2">Unit</th><th colspan="3">Values for the period May 17 – Oct 17</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>1</td><td>SO_2</td><td>40</td><td>mg/Nm^3</td><td>2.9</td><td>6.8</td><td>5.2</td></tr>
<tr><td>2</td><td>SO_2 (kg/T)</td><td>2</td><td>kg/T</td><td>0.5</td><td>0.8</td><td>0.6</td></tr>
<tr><td>3</td><td>NOx</td><td>25</td><td>mg/Nm^3</td><td>3.4</td><td>12.8</td><td>6.9</td></tr>
<tr><td>4</td><td>HCl</td><td>20</td><td>mg/Nm^3</td><td>3.5</td><td>6.8</td><td>5.7</td></tr>
<tr><td>5</td><td>PM</td><td>150</td><td>mg/Nm^3</td><td>4.2</td><td>45</td><td>25.2</td></tr>
<tr><td>6</td><td>PM with Pesticide compound</td><td>20</td><td>mg/Nm^3</td><td>4.8</td><td>7.8</td><td>6.2</td></tr>
</table></td></tr>
<tr><td>In the event of failure of any pollution control system adopted by the units, the respective unit should be immediately put out of operation and should not be restarted until the desired efficiency has been achieved.</td><td>Complied. No such incident happened during compliance period.</td></tr>
<tr><td>iii</td><td>The overall noise level in and around the plant area shall be kept well within the standard by providing noise control measures including</td><td>Complied. Acoustic hood, silencer and acoustic enclosures and insulation are provided at appropriate high noise area like turbine, DG set, vents etc.</td></tr>
</table>

acoustic hoods silencers, enclosures etc. on all source of noise generation.

The ambient noise levels should confirm to the standards prescribed under EPA Rules, 1989, viz. 75 (daytime) and 70bBA(night time)

Complied. The ambient noise level is regularly monitored and its data are given in **Table 4 and 5**. (Pl. see pg. no. 21)

The maximum values during the compliance period confirms that at no time the noise emission level went beyond the stipulated standards. Summery is given below:

Noise level monitoring data (Day Time)

Sr. No.	**Location**	**Permissible Limits, dBA**	**Values for the period May 17 – Oct 17**		
		75	**Min.**	**Max.**	**Avg.**
1	Near Main guest house	75	58	65	62
2	Near TSDF	75	61	67	63
3	At Wyeth Colony	75	58	62	60
4	Gram Panchayat Hall	75	58	63	60
5	Near Main Office North site	75	57	63	59
6	ETP North site	75	62	67	65
7	Opposite shed D	75	62	68	65
8	ETP West site	75	61	68	64
9	Water tank Haria road	75	64	68	66
10	Near 66KVA substation	75	59	67	63

Noise level monitoring data (Night Time)

Sr. No.	**Location**	**Permissible Limits, dBA**	**Values for the period May 17 – Oct 17**		
		70	**Min.**	**Min.**	**Min.**
1	Near Main guest house	70	52	58	56
2	Near TSDF	70	54	59	57
3	At Wyeth Colony	70	51	55	53
4	Gram Panchayat Hall	70	52	58	55

		5 | Near Main Office North site | 70 | 51 | 57 | 54 6 | ETP North site | 70 | 58 | 61 | 60 7 | Opposite shed D | 70 | 54 | 62 | 59 8 | ETP West site | 70 | 52 | 62 | 58 9 | Water tank Haria road | 70 | 56 | 62 | 58 10 | Near 66KVA substation | 70 | 55 | 62 | 58
iv	**The project authorities will provide adequate funds to recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment and Forest as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purposes.**	**Complied**. EMP measures are implemented by 2010 and many things have already been at place. **Non recurring cost: 6.3 Cr** **Recurring cost:** A budget is prepared for every coming six months and separate fund is allocated towards environmental management. Total expenditure for the report period is given in below table: **Expenditure for months** | **Particular** | **Expenses Rs.** May- 2017 to October 2017 Including, recurring maintenance, modifications and monitoring. | Fuel | 685121 Chemicals(Raw Material) | 66509539 Electricity | 26951192 Waste disposal | 19107766 Salary | 16153895 Maintenance & modifications | 16653743 Monitoring | 7466957 **Total** | **153528213**
v	**The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management & Handling) Rules, 2003.**	**Complied**. The company complies with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management & Handling) Rules, 2003. We have valid authorization under our current CCA No. AWH-67717 for handling, storage and disposal of hazardous waste. Stipulation made in CCA by GPCB are being complied. This has been certified by our Environmental auditors, an

		authorized agency and nominated by GPCB; through Environmental audit every year. Latest compliance report by GPCB appointed Environmental auditor Shroff S R Rotary Institute of Chemical Technology, Vatariya, Dist. Bharuch for year 16-17 is attached as **Annexure C**.
	Authorization from the GPCB must be obtained for collections /treatment/ storage/ disposal of hazardous waste.	**Complied**. We have valid authorization under our current CCA No. AWH-67717 for handling, storage and disposal of hazardous waste.
vi	**The stipulated conditions will be monitored by the Regional office of this Ministry at Bhopal/ GPCB.**	Noted.
	A six monthly compliance report and the monitored data should be submitted to them regularly.	**Complied**. Six monthly compliance report and the monitored data are being submitted to the Ministry at Bhopal with copy marked to GPCB regularly.
Vii	**The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at website of the Ministry of Environment and Forest at http://www.envfor.ni.in.**	**Complied**. We informed the public through advertisement and by sending our EC to local Panchayat, Zila parishad, District Industrial Centre for further actions at their end.
	This shall be advertised within seven days from the date of issue of the clearance letter at least in two local newspaper that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Ministry's Regional office at Bhopal.	**Complied**. Advertisement was published as directed and copy of the same was submitted to Ministry.
3.0	**The ministry or any competent authority may stipulate any further condition(s) on receiving reports from the project authorities.**	Noted.

	The above conditions will be monitored by the Regional Office of this Ministry located at Bhopal.	Noted.
4.0	**The Ministry may revoke or suspend the clearance if implementation of any of the above conditions is not satisfactory.**	Noted.
5.0	**Any other conditions or alternation in the above conditions will have to be implemented by the project authorities in a time bound manner.**	Noted and will be complied.
6.0	**The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 the Air ((Prevention and Control of Pollution) Act, 1981 the Environment (Protection) Act, 1986, Hazardous Wastes (Management and Handling) Amendment Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.**	Noted.

Table 1 : Stack Monitoring Details

Sr. No.	Stack Details	Permissible Limits	Stack Height m	Paramenter	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value
Atul East Site																
1	Phosgene Plant	0.1 ppm	15	Phosgene	16/5/17	ND	7/6/17	ND	6/7/17	ND	4/8/17	ND	7/9/17	ND	5/10/17	ND
2	Dechlorination Plant	9.0 mg/Nm3	35	CI 2		Not Runnig During Visit	9/6/17	3.2	6/7/17	3.6	10/8/17	3.8	7/9/17	3.6	6/10/17	3.8
		20.0 mg/Nm3		HCI				5.1		5.4		5.2		5.6		6.1
3	Common stack of Hcl Sigri unit 1& 2	9.0 mg/Nm3	25	CI 2				2.8		2.6		2.8		3.1		4.1
		20.0 mg/Nm3		HCI				6.2		5.8		6.2		6.4		6.8
FCB																
4	Foul Gas Scubber	40.0 mg/Nm3	26.5	SO2		Not in use		Not in use		Not in use		Not in use		Not in use		Not in use
		25.0 mg/Nm3		NOx												
Sulfuric Acid (East Side)																
5	Sulfuric Acid plant	2.0 kg/T	30	SO2	17/5/17	0.6	14/6/17	0.5	8/7/17	0.6	4/8/17	0.7	4/9/17	0.6	7/10/17	0.8
		50.0 mg/Nm3		Acid Mist		6.3		7.2		6.8		6.6		6.7		7.5
6	ChloroSulfonic Acid plant reactor	9.0 mg/Nm3	11	CI 2		5.5		3.8		3.2		3.4		3.6		4.1
		20.0 mg/Nm3		HCI		5.4		5.8		5.2		5.6		5.9		6.3
Incinerator																
7	Incinerator	150.0 mg/Nm3	40	PM	10/5/17	26	21/6/17	28	14/7/17	26	12/8/17	24	15/9/17	28	12/10/17	31
		40.0 mg/Nm3		SO2		2.9		3.2		3.5		3.6		3.8		4.2
		25.0 mg/Nm3		Nox		11.8		12.8		11.2		10.8		11.2		10.8
NI Plant																
8	Foul Gas Scubber	40.0 mg/Nm3	26.5	SO2	22/5/17	5.8	21/6/17	6.1	14/7/17	5.6	12/8/17	5.3	15/9/17	5.6	13/10/17	5.9
		25.0 mg/Nm3		Nox		5.2		4.2		3.8		3.4		3.6		4.2
NBD Plant .																
9	Spray Dryer	150.0 mg/Nm3	21	PM		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
2-4-D Plant																
10	Chlorinator, 2,4 D plant	9.0 mg/Nm3	26.5	Cl2	19/5/17	2.6	15/6/17	2.2	21/7/07	2.6	19/8/17	2.4	27/9/17	3.1	17/10/17	4.6
		20.0 mg/Nm3		HCI		5.6		6.1		5.8		5.2		6.5		6.1
11	Chlorinator, 2,4 D plant	9.0 mg/Nm3	26.5	Cl2		3.6		3.4		3.1		3.8		3.4		3.8
		20.0 mg/Nm3		HCI		5.8		5.4		5.6		5.4		6.2		5.8
12	Chlorinator, 2,4 D plant	9.0 mg/Nm3	26.5	Cl2		3.4		3.2		3.4		3.1		3.4		3.6
		20.0 mg/Nm3		HCI		5.4		5.1		5.4		5.1		5.8		5.2
13	Chlorinator, 2,4 D plant	9.0 mg/Nm3	26.5	Cl2		3.2		3.6		3.8		3.2		3.6		3.1
		20.0 mg/Nm3		HCI		6.8		6.4		6.2		6.4		6.2		5.7
14	Chlorinator, 2,4 D plant	9.0 mg/Nm3	26.5	Cl2		3.6		3.1		2.8		2.7		2.9		3.2
		20.0 mg/Nm3		HCI		6.4		6.2		5.6		5.8		5.7		5.8
15	Common Scrubber; 2,4D Plant	9.0 mg/Nm3	5	Cl2		3.4		3.8		3.4		3.6		3.5		3.3
		20.0 mg/Nm3		HCI		6.2		5.8		5.4		5.7		5.4		5.7
16	Dryer-1	20.0 mg/Nm3	26.5	PM with Pesticide	18/5/17	6.8	14/6/17	6.4	22/7/17	5.8	18/8/17	5.2	13/9/17	5.5	16/10/17	6.2
17	Dryer-2	20.0 mg/Nm3	26.5	PM with Pesticide		7.2		7.8		6.2		5.8		5.2		4.8
18	Dryer-3	20.0 mg/Nm3	26.5	PM with Pesticide		5.6		6.8		5.4		6.2		6.8		5
19	Dryer-4	20.0 mg/Nm3	26.5	PM with Pesticide		5.8		7.2		6.8		6.8		7.2		6.5
20	Common Scrubber; 2,4D Plant	---	5	Phenol	19/5/17	ND	15/6/17	ND	21/7/07	ND	19/8/17	ND	27/9/17	ND	17/10/17	ND

CP Plant		Permissible Limits	Stack Height m	Paramenter	Date of Sampling	Obtained Value		Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value
21	MCPA	9 mg/NM^3	19	CL_2		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
		20 mg/NM^3		HCL												
		40 mg/NM^3		SO_2												
22	Fipronil	40 mg/NM^3	19	SO2		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
		20 mg/Nm3		HCL												
23	Imidacloprid	175 mg/Nm3	20	NH3		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
24	Pyrathroids	40 mg/Nm3	19	SO2		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
		20 mg/Nm3		HCL												
25	Stack at Amine Plant	175 mg/Nm3	5	NH3		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit	28/9/17	3.6	17/10/17	3.2
MPSL Plant																
26	Phosgene Scrubbr at MPSL	0.1 ppm	7	Phosgene	22/5/17	ND	21/6/17	ND	27/7/17	ND	24/8/17	ND	21/9/17	ND	18/10/17	ND
27	Central Scrubber at MPSL	0.1 ppm	7	Phosgene		ND		ND		ND		ND		ND		ND
NICO Plant																
28	Central scrubber at Nico Plant	---	12	Acetonytryle, IPA		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
Ester Palnt																
29	Scrubber at Ester plant for Glyphosate	10 mg/Nm3	12	Formaldehyde		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
30	Central Scrubber MCPA Plant	20 mg/Nm3	19	HCL												
Atul West Site																
31	Shed A7/14/41 Reaction pan/ D tank	2.0 mg/Nm3	19	Bromine		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
		25.0 mg/Nm3		NOx												

		Permissible Limits	Stack Height m	Paramenter	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value
32	Shed B2/12/24 Reaction Vessel	9.0 mg/Nm3	19	Cl2	4/5/17	4.8	16/6/17	4.6	13/7/17	4.2	25/8/17	4.5	21/9/17	4.8	18/10/17	5.2
		20.0 mg/Nm3		HCl		5.6		5.2		4.9		5.2		5.6		4.6
33	Shed C5/20/15 Chlorinator	9.0 mg/Nm3	19	Cl2	5/5/17	5.4	22/6/17	5.1		5.3		5.1	22/9/17	4.9	18/10/17	5.6
		20.0 mg/Nm3		HCl		5.2		5.5		5.8		6.2		5.4		4.3
34	Shed D Niro Spray dryer No.45	150.0 mg/Nm3	19	PM	4/5/17	4.6	23/6/17	4.4	15/7/17	4.6	11/8/17	4.2	22/9/17	6.5	26/10/17	6.3
35	Shed D Niro Spray dryer No. 50	150.0 mg/Nm3	19	PM		5.3		5.6		5.2		5.8		6.2		5.7
36	Shed E 7/12/49 Spray Dryer	150.0 mg/Nm3	19	PM	11/5/17	5.7	15/6/17	5.2	21/7/17	5.8	26/8/17	6.8	23/9/17	7.5	26/10/17	7.1
37	Shed F 6/1/15 Reaction Vessel	9.0 mg/Nm3	19	Cl2	12/5/17	5.3	23/6/17	4.8		4.4		4.8		5.2	18/10/17	5.8
		20.0 mg/Nm3		HCl		6.2		5.2		5.6		5.2		5.8		6.4
38	Shed G 10/8/1 (receiver)	9.0 mg/Nm3	19	Cl2		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
		20.0 mg/Nm3		HCl												
39	Shed H 1/6/17 Chlorinator	9.0 mg/Nm3	19	Cl2	22/5/17	4.2	28/6/17	4.6	22/7/17	4.8		Not Runnig During Visit	22/9/17	1.8	18/10/17	2.1
		20.0 mg/Nm3		HCl		5.6		5.2		5.6				3.5		4.1
40	Shed K K-13/3/4 Final of Sulfuric acid plant	2.0 kg/T	19	SO2	23/5/17	0.6		0.5		0.6	31/8/17	0.8	22/9/17	0.6	26/10/17	0.8
		50.0 mg/Nm3		Acid Mist		5		4		5		8		7		9
Atul North Site																
41	N-FDH Plant Catalytic Incinerator	150.0 mg/Nm3	31.5	PM	29/5/17	19	21/6/17	17	20/7/17	18	24/8/17	15	13/9/17	19	5/10/17	22
		40.0 mg/Nm3		SO2		6.8		6.2		6.3		6.2		6.8		6.2
		25.0 mg/Nm3		Nox		5.4		5.1		5.4		5.1		5.6		5.1
		10.0 mg/Nm3		Formaldehyde		ND		ND		ND		ND		ND		ND
42	PHIN Plant	0.1 ppm	15.5	Phosgene	30/5/17	ND	8/6/17	ND		ND	17/8/17	ND	5/9/17	ND	26/10/17	ND
43	DCDPS Plant	---	30	SO3		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
44	DDS Plant	175 mg/Nm3	20	NH3	28/12/2016	Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit		Not Runnig During Visit
45	SPIC II Plant	---	30	SO3	29/5/17	2.4	9/6/17	2.1	20/7/17	2.6	17/8/17	-	5/9/17	2.6	26/10/17	3.1
46	SPIC I Plant	175 mg/Nm3	30	NH3	30/5/17	3.1		2.9		3.2		3.1		3.5	27/10/17	4.3

Details of Flue gas stack		Permissible Limits	Stack Height m	Paramenter	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value	Date of Sampling	Obtained Value
East site																
1	FBC boiler El	150.0 mg/Nm3	34	SPM	23/5/17	35	28/6/17	33	27/7/17	32	30/8/17	35	20/9/17	37	27/10/17	39
		100 ppm		SO2		31		28		26		36		36		37
		50 ppm		Nox		33		31		29		31		39		33
2	FBC boiler E2	150.0 mg/Nm3	34	SPM		32		36		34		31		35		35
		100 ppm		SO2		30		32		30		33		36		34
		50 ppm		Nox		32		35		33		35		38		36
3	FBC boiler No.3	150.0 mg/Nm3	50	SPM		36		32		35		38		34		33
		100 ppm		SO2		33		30		28		31		33		31
		50 ppm		Nox		35		33		32		34		36		37
4	Hot Oil Unit (Resorcinol Plant)	150.0 mg/Nm3	32.5	SPM		ND		ND		ND		ND		ND		ND
		100 ppm		SO2		ND		ND		ND		ND		ND		ND
		50 ppm		Nox		29		26		28		26		28		30
West Site																
5	FBC boiler W1	150.0 mg/Nm3	45	SPM	24/5/17	34	29/6/17	32	28/7/17	31	18/8/17	34	21/9/17	36	28/10/17	38
		100 ppm		SO2		31		29		28		31		32		34
		50 ppm		Nox		36		33		33		35		38		36
6	Coal fired Boiler W1	150.0 mg/Nm3	35	SPM		Discarded		Discarded		Discarded		Discarded		Discarded		Discarded
		100 ppm		SO2												
		50 ppm		Nox												
7	Coal fired boiler W2	150.0 mg/Nm3	35	SPM		Discarded		Discarded		Discarded		Discarded		Discarded		Discarded
		100 ppm		SO2												
		50 ppm		Nox												
8	Hot Oil Plant shed-B	150.0 mg/Nm3	19	SPM	24/5/17	ND	29/6/17	ND	28/7/17	ND	18/8/17	ND	21/9/17	ND	28/10/17	ND
		100 ppm		SO2		ND		ND		ND		ND		ND		ND
		50 ppm		Nox		26		24		24		26		29		31
9	Oil burner Shed B (Standby)	150.0 mg/Nm3	17	SPM		STAND BY		STAND BY		STAND BY		STAND BY		STAND BY		STAND BY
		100 ppm		SO2												
		50 ppm		Nox												
10	Boiler (50 TPH 2 Nos)	50.0 mg/Nm3	108	PM	29/5/17	38	24/6/17	35	29/7/17	34	5/8/17	32	23/9/17	38	7/10/17	40
		100 ppm		SO2		35		32		30		35		35		38
		50 ppm		Nox		36		34		28		31		37		36
		--		Mercury		ND		ND		ND		ND		ND		ND
11	DG set 1500 KVA (Standby)	150.0 mg/Nm3	12	SPM		STAND BY		STAND BY		STAND BY		STAND BY		STAND BY		STAND BY
		100 ppm		SO2												
		50 ppm		Nox												
North Site																
12	Thermic fluid heater of DCO/DAP Plant	150.0 mg/Nm3	12	SPM	18/5/17	45		42	29/7/17	40	31/8/17	38	21/9/17	37	28/10/17	39
		100 ppm		SO2		34		32		34		36		34		36
		50 ppm		NOx		31		29		31		32		36		34

Table 2 : Fugitive Emission Monitoring details

Plant	Area	Parameter	Prescribed Limit	Results of VOCs in Milligram per NM^3					
				May-17	Jun-17	Juy-17	Aug-17	Sep-17	Oct-17
2,4 D	Reactor	Phenol	19	0.096	7	8.2	9.1	5.4	12.6
	Buffer tank	Chlorine	3	0.148	0.152	0.18	0.144	0.85	1.1
Resorcinol	Benzene storage tank area near vent	Benzene	15	1.27	0.8	1.1	1.4	2.8	1.7
	Near Extraction/ scrubber unit	Butyl acetate	-	ND	ND	0.06	0.05	0.12	0.17
Pharma	At second floor work area	Ammonia	0.8	0.81	0.44	0.68	0.55	1.2	2.1
	Ammonia recovery area	Ammonia	0.8	0.69	3.8	5.2	4.3	3.8	1.9
Epoxy - I	At vacuum pump 2nd floor	ECH	10	8.71	7.55	8.1	9.1	7.6	3.8
	At vessel POS 1208 G.F	ECH	10	8.66	8.78	5.2	7.6	6.9	5.2
Shed H	At second floor work area	Nitrobenzene	5	3.76	3.426	1.8	2.3	2.7	1.7
Shed J	Buffer Tank	Chlorine	3	0.128	0.182	0.32	0.21	0.84	1.1

Table 3 : Quality of treated effluent

Sr. No.	Parameter	Results						GPCB Limits
		May-17	Jun-17	Juy-17	Aug-17	Sep-17	Oct-17	
1	pH	7.1	7.2	7.5	7	7.2	7.5	5.5 to 9.0
2	Temperature ^{o}C	30	29	28	28	29	29	40 ^{o}C
3	Colour (pt. co. scale)in units	58	62	35	42	35	48	---
4	Suspended solids, mg/l	68	54	43	46	39	41	100
5	Phenolic Compounds, mg/l	0.5	0.7	0.2	0.7	0.2	0.5	5
6	Cyanides, mg/l	ND	ND	ND	ND	ND	ND	0.2
7	Fluorides, mg/l	ND	ND	ND	ND	ND	ND	2
8	Sulphides, mg/l	0.2	0.1	0.1	0.2	0.1	0.2	2
9	Ammonical Nitrogen, mg/l	36	38	28	16	22	36	50
10	Total Chromium, mg/l	0.2	0.1	0.02	0.01	0.02	0.01	2
11	Hexavelent Chromium, mg/l	ND	ND	ND	ND	ND	ND	1
12	BOD (3 days at 27^{o}C), mg/l	40	38	32	36	42	48	100
13	COD, mg/l	226	212	198	202	224	232	250
Note : ND is Not Detectable.								

Table 4 : Noise level monitoring data (Day Time)

Sr. No.	Location	Noise Level, dBA						Permissible Limits, dBA
		May-17	Jun-17	Juy-17	Aug-17	Sep-17	Oct-17	75
1	Near Main guest house	58	60	62	61	63	65	75
2	Near TSDF	62	63	61	63	62	67	75
3	At Wyeth Colony	61	58	59	60	60.4	62	75
4	Gram Panchayat Hall	59	62	63	58	59	61	75
5	Near Main Office North site	63	57	58	59	57	59	75
6	ETP North site	67	65	66	65	64	62	75
7	Opposite shed D	66	68	64	63	62	64	75
8	ETP West site	68	66	63	61	63	62	75
9	Water tank Haria road	64	64	67	68	66	65	75
10	Near 66KVA substation	59	61	64	67	64	61	75

Table 5 : Noise level monitoring data (Night Time)

Sr. No.	Location	Noise Level, dBA						Permissible Limits, dBA
		May-17	Jun-17	Juy-17	Aug-17	Sep-17	Oct-17	70
1	Near Main guest house	52	55	56	58	56	58	70
2	Near TSDF	56	57	57	59	57	54	70

3	At Wyeth Colony	54	53	54	55	52	51	70
4	Gram Panchayat Hall	52	57	58	56	54	53	70
5	Near Main Office North site	57	52	53	51	53	56	70
6	ETP North site	61	60	59	58	61	58	70
7	Opposite shed D	60	62	60	56	59	54	70
8	ETP West site	62	61	57	55	58	52	70
9	Water tank Haria road	57	58	62	57	56	59	70
10	Near 66KVA substation	56	55	58	62	61	57	70

ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE

Sample ID:218880 - Analysis Completion:11/10/2017

Dyes and Dye- Intermediates / LAB Inward : 43072

Gujarat Pollution Control Board, Vapi
C5/124, GIDC Vapi,
Near Hotel Pritam,
Vapi - 396 195
Tele:(0260) 2432089

Accreditation Standards & NABL Certificate Details : Biological(T-3121) / Chemical(T-3120) / 18.09.2014 / 17.09.2016

TEST REPORT

Test Report No. : 43072 **Date: 11/10/2017**

1. Name of the Customer : **Atul Limited - 23158**
2. Address : **5, 6, 29, 30, 33, 34, 35, 37, 38, 80, 81, 84, 85, 91, etc.,AT & P.O.ATUL, Dist. Valsad, Pin: ATUL-396020, Taluka : Valsad, District : Valsad, GIDC : Not In Gidc**
3. Nature of Sample : **REP-Representative/Grab, (Insp Type : COM-On Complaint)**
4. Sample Collected By : **S.B.Patel,SO**
5. Quantity of Sample Received : **0**
6. Code No. of the Sample : **218880**
7. Date & Time of Collection & Inwarding : **28/09/2017 , (1350 to 1350) & 29/09/2017**
8. Date of Start & Completion of Analysis : **29/09/2017 & 11/10/2017**
9. Sampling Point : **## Final Outlet of the ETP ~ -**
10. Flow Details (Remarks) : **yes**
11. Mode of Disposal : **Into River Par estury zone through u/g pipeline**
12. Ultimate Receiving Body : **Estuary zone of river par**
13. Temperature on Collection : **29 & pH Range on pH Strip :@ 7 to 8 on pH STRIP**
14. Carboys Nos for : **Barcode & Color & Appearance :Brownish**
15. Water Consumption & W.W.G (KLPD) : **Ind :23726.000 , Dom :938.000 & Ind :21727.000 , Dom :939.000**

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Temperature	Centigrade	IS: 3025 (Part – 9) – 1984(Reaffirmed 2006)	Ambient oC - 60 oC	29
2	pH	pH Units	4500 H+ B APHA Standard Methods 22nd edi.2012	1 – 14 pH value As or	7.53
3	Colour	Pt.Co.Sc.	2120 B APHA Standard Methods 22nd edi. 2012	2 - to 99 Hazen & 1-50	20
4	Total Dissolved Solids	mg/l	Gravimetric method. (2540 C APHA Standard Methoc	10 – 200000 mg/L	2886
5	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Methoc	2 – 10000 mg/L	44
6	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standa	1 - 2000 mg/l.	8.09
7	Chloride	mg/l	Argentometric method. (4500 Cl? B APHA Standard M	1 - 50000 mg/l	1124
8	Sulphate	mg/l	APHA(22nd edi)4500 SO4 E	2-40mg/l	390
9	Chemical Oxygen Demand	mg/l	APHA (22nd Edition)- 5220 B Open Reflux Method-2	5.0- 50000 mg/l	241
10	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	1.0
11	Phenolic Compounds	mg/l	4 Amino Antipyrene method without Chloroform Extra	0.1 – 50 mg/l	BDL
12	Sulphide	mg/l	APHA (22nd Edi.)4500-s2-F –iodometric Method	1-500.0 mg/l	0.506
13	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirmed	05–50000 mg/l	52

Laboratory Remarks : FREEZE By:445-lab_445 Dt.: 11/10/2017

J.D.OZA, Lab Head

Field Observation :

Note :

1. * - These parameters are covered under the scope of NABL.
2. The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
3. Samples will be destroyed after 10 days from the date of issue of test report unless otherwise specified.
4. This report is not to be reproduced wholly or in part or used in any advertising media without the permission of the Board in writing.
5. The Board is not responsible for the authenticity for the samples not collected by the Board's officials.
6. Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Gujarat Jurisdiction only.
7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
8. Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 22nd Edition by APHA.
9. Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.

ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE

Sample ID:205274 - Analysis Completion:27/02/2017

Dyes And Dye-Intermediates. / LAB Inward : 40525

Gujarat Pollution Control Board, Vapi
C5/124, GIDC Vapi,
Near Hotel Pritam,
Vapi - 396 195
Tele:(0260) 2432089

Accreditation Standards & NABL Certificate Details : Biological(T-3121) / Chemical(T-3120) / 18.09.2014 / 17.09.2016

TEST REPORT

Test Report No. : 40525 **Date: 27/02/2017**

1. Name of the Customer : **Atul Limited - 23158**
2. Address : **5, 6, 29, 30, 33, 34, 35, 37, 38, 80, 81, 84, 85, 91, etc.,AT & P.O.ATUL, Dist. Valsad, Pin: ATUL-396020, Taluka : Valsad, District : Valsad, GIDC : Not In Gidc**
3. Nature of Sample : **REP-Representative/Grab, (Insp Type : HOR-H.O.Reference)**
4. Sample Collected By : **A.G. Rana,SO(M)**
5. Quantity of Sample Received : **0**
6. Code No. of the Sample : **205274**
7. Date & Time of Collection & Inwarding : **10/02/2017 , (1105 to 1105) & 13/02/2017**
8. Date of Start & Completion of Analysis : **13/02/2017 & 27/02/2017**
9. Sampling Point : **Water sample collected from borewell No. 1 (Upstream of TSDF) ~**
10. Flow Details (Remarks) : **---**
11. Mode of Disposal : **---**
12. Ultimate Receiving Body : **0**
13. Temperature on Collection : **25 & pH Range on pH Strip :@ 7 on pH strip**
14. Carboys Nos for : **Barcode & Color & Appearance :colourless**
15. Water Consumption & W.W.G (KLPD) : **Ind :22627.000 , Dom :938.000 & Ind :19210.000 , Dom :938.000**

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Temperature	Centigrade	IS: 3025 (Part – 9) – 1984(Reaffirmed 2006)	Ambient oC - 60 oC	25
2	pH	pH Units	4500 H+ B APHA Standard Methods 22nd edi.2012	1 – 14 pH value As or	7.37
3	Colour	Pt.Co.Sc.	2120 B APHA Standard Methods 22nd edi. 2012	2 - to 99 Hazen & 1-50	2.5
4	Total Dissolved Solids	mg/l	Gravimetric method. (2540 C APHA Standard Methoc	10 – 200000 mg/L	1106
5	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Methoc	2 – 10000 mg/L	14
6	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standa	1 - 2000 mg/l.	<1.0
7	Chloride	mg/l	Argentometric method. (4500 Cl? B APHA Standard M	1 - 50000 mg/l	333
8	Sulphate	mg/l	APHA(22nd edi)4500 SO4 E	2-40mg/l	29
9	Chemical Oxygen Demand	mg/l	APHA (22nd Edition)- 5220 B Open Reflux Method-2	5.0- 50000 mg/l	16
10	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	BDL
11	Phenolic Compounds	mg/l	4 Amino Antipyrene method without Chloroform Extra	0.1 – 50 mg/l	BDL
12	Cyanide	mg/l	Titrimetric method. (4500 - CN? D APHA Standard Me	1-10 mg/l	BDL
13	Sulphide	mg/l	APHA (22nd Edi.)4500-s2-F –iodometric Method	1-500.0 mg/l	BDL
14	Hexavalent Chromium	mg/l	APHA (22nd Edition) –3500 – Cr B : -2012 Colorimet	0.1 – 100 mg/l	BDL
15	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirmed	05–50000 mg/l	3.0

Laboratory Remarks : FREEZE By:445-lab_445 Dt.: 27/02/2017

J.D.OZA, Lab Head

Field Observation :

Note :
1. * - These parameters are covered under the scope of NABL.
2. The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
3. Samples will be destroyed after 10 days from the date of issue of test report unless otherwise specified.
4. This report is not to be reproduced wholly or in part or used in any advertising media without the permission of the Board in writing.
5. The Board is not responsible for the authenticity for the samples not collected by the Board's officials.
6. Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Gujarat Jurisdiction only.
7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
8. Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 22nd Edition by APHA.
9. Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.

ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE

Sample ID:205278 - Analysis Completion:27/02/2017

Dyes And Dye-Intermediates. / LAB Inward : 40522

Gujarat Pollution Control Board, Vapi
C5/124, GIDC Vapi,
Near Hotel Pritam,
Vapi - 396 195
Tele:(0260) 2432089

Accreditation Standards & NABL Certificate Details : Biological(T-3121) / Chemical(T-3120) / 18.09.2014 / 17.09.2016

TEST REPORT

Test Report No. : 40522 **Date: 27/02/2017**

1. Name of the Customer : **Atul Limited - 23158**
2. Address : **5, 6, 29, 30, 33, 34, 35, 37, 38, 80, 81, 84, 85, 91, etc.,AT & P.O.ATUL, Dist. Valsad, Pin: ATUL-396020, Taluka : Valsad, District : Valsad, GIDC : Not In Gidc**
3. Nature of Sample : **REP-Representative/Grab, (Insp Type : HOR-H.O.Reference)**
4. Sample Collected By : **A.G. Rana,SO(M)**
5. Quantity of Sample Received : **0**
6. Code No. of the Sample : **205278**
7. Date & Time of Collection & Inwarding : **10/02/2017 , (1123 to 1123) & 13/02/2017**
8. Date of Start & Completion of Analysis : **13/02/2017 & 27/02/2017**
9. Sampling Point : **Water sample collected from borewell No. 4 (Downstream of TSDF) ~**
10. Flow Details (Remarks) : **---**
11. Mode of Disposal : **---**
12. Ultimate Receiving Body : **0**
13. Temperature on Collection : **25 & pH Range on pH Strip :@ 7 on pH strip**
14. Carboys Nos for : **Barcode & Color & Appearance :colourless**
15. Water Consumption & W.W.G (KLPD) : **Ind :22627.000 , Dom :938.000 & Ind :19210.000 , Dom :938.000**

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Temperature	Centigrade	IS: 3025 (Part – 9) – 1984(Reaffirmed 2006)	Ambient oC - 60 oC	25
2	pH	pH Units	4500 H+ B APHA Standard Methods 22nd edi.2012	1 – 14 pH value As or	7.24
3	Colour	Pt.Co.Sc.	2120 B APHA Standard Methods 22nd edi. 2012	2 - to 99 Hazen & 1-50	2.5
4	Total Dissolved Solids	mg/l	Gravimetric method. (2540 C APHA Standard Methoc	10 – 200000 mg/L	560
5	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Methoc	2 – 10000 mg/L	6
6	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standa	1 - 2000 mg/l.	<1.0
7	Chloride	mg/l	Argentometric method. (4500 Cl? B APHA Standard M	1 - 50000 mg/l	170
8	Sulphate	mg/l	APHA(22nd edi)4500 SO4 E	2-40mg/l	23
9	Chemical Oxygen Demand	mg/l	APHA (22nd Edition)- 5220 B Open Reflux Method-2	5.0- 50000 mg/l	15
10	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	BDL
11	Phenolic Compounds	mg/l	4 Amino Antipyrene method without Chloroform Extra	0.1 – 50 mg/l	BDL
12	Cyanide	mg/l	Titrimetric method. (4500 - CN? D APHA Standard Me	1-10 mg/l	BDL
13	Sulphide	mg/l	APHA (22nd Edi.)4500-s2-F –iodometric Method	1-500.0 mg/l	BDL
14	Hexavalent Chromium	mg/l	APHA (22nd Edition) –3500 – Cr B : -2012 Colorimet	0.1 – 100 mg/l	BDL
15	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirmed	05–50000 mg/l	2

Laboratory Remarks : FREEZE By:445-lab_445 Dt.: 27/02/2017

J.D.OZA, Lab Head

Field Observation :

Note :

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5. The Board is not responsible for the authenticity for the samples not collected by the Board's officials.
6. Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Gujarat Jurisdiction only.
7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
8. Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 22nd Edition by APHA.
9. Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.

ENVIRONMENTAL AUDIT REPORT

FOR AUDIT PERIOD
APRIL-2016
TO
MARCH-2017

Industry

M/s. ATUL LIMITED.,
ATUL-396020, DIST: VALSAD.

Auditor
SHROFF S R ROTARY INSTITUTE OF CHEMICAL TECHNOLOGY (SRICT)
Block No. 402, At & Post Vataria, Dist. Bharuch.

ANNEXURE – 19
COMPLIANCE REPORT AND CASE/COMPLAIN

Detail		Has valid consent/ authorization	Complying with standards and other Conditions
(A)	Compliance Report of water as per Water Act, 1974: If NO, comment:	Yes. Consent is valid up to 03.11.2019	Complied
(B)	Compliance Report for Air as per Air Act, 1981: If NO, comment		Complied
(C)	Compliance Report for the storage and handling of hazardous waste/chemicals under The Hazardous Waste (Management and Handling and trans boundary Movement) Rule, 2008 & EPA-86 If NO, comment:		Complied

UTILITIES AND SERVICES

touching lives...

ATUL LTD

Atul 396020, Gujarat, India
Telephone: (+91 2632) 230000 | 233261 Telefax: (+91 2632) 233027 | 233619
CIN : L99999GJ1975PLC002859
Email: atul_infra@atul.co.in Website: www.atul.co.in

Ref : Atul/SHE/CRZ Compliance/02 **Through Reg. AD Post**
Date : 30th November, 2017

To,
The Additional Chief Secretary,
Forest and Environment Department
Block 14, Floor 8, Sachivalay,
Gandhinagar 382010

Subject : Six Monthly Compliance on CRZ Condition
Reference : CRZ Clearance No. ENV-1097-2942-P, dated 17.01.1998

Respected Sir,

Please find attached herewith six monthly compliance report for the period of May 2017-October 2017 with respect to the above referred CRZ Clearance granted to M/s Atul Ltd. Valsad, Gujarat.

We hereby request you to kindly validate the same.

Kindly do the needful and oblige.

Thanking you.

Yours truly,
For ATUL LIMITED,

(B. N. Mohanan)
Whole time Director & President – Utility & Services

Atul Limited

Project: CRZ clearance for proposed 4.0 km long treated effluent discharge pipe line in Par estuary, Dist. Valsad.
CRZ Compliance for the period May 2017-October 2017 as per CRZ Clearance No. ENV-1097-2942-P, dated 17.01.1998.

<table>
<tr><th>No.</th><th>Condition</th><th>Compliance</th></tr>
<tr><td>1</td><td>The Company shall strictly adhere to all the provisions of CRZ notification of 1991 and subsequent amendments.</td><td>Complied. Details are given below in the table:
<table>
<tr><th>No.</th><th>Clause under CRZ notification</th><th>Compliance</th></tr>
<tr><td>1</td><td>Imposes the given restrictions in setting up and expansion of industries, operations or processes in CRZ.</td><td>Noted</td></tr>
<tr><td>2</td><td>List of prohibited activities within CRZ.</td><td>Noted</td></tr>
<tr><td>3</td><td>Guideline for regulation of permissible activities.</td><td>Noted</td></tr>
<tr><td>4</td><td>Procedure for monitoring and enforcement.</td><td>Applicable to Ministry</td></tr>
<tr><td>Ann 1</td><td>Classification of costal regular zone.</td><td>Noted</td></tr>
<tr><td>Ann 2</td><td>Guidelines for development of beach/ resort/ hotels.</td><td>NA</td></tr>
<tr><td>Ann 3</td><td>List pf petroleum products permitted in storage in CRZ except CRZ-1.</td><td>NA</td></tr>
</table></td></tr>
<tr><td>2</td><td>The company shall strictly adhere to the conditions stipulated by the Gujarat Pollution Control Board in their Consent order.</td><td>Complied. The company complies with all stipulated norms under various acts. Stipulation made in CCA by GPCB are being complied and the same is certified by the external agency, i.e. our Environmental auditors appointed by GPCB. Latest audit report for year 16-17 was submitted vide our letter Atul/SHE/CRZ Compliance/01 dated 17/7/17.</td></tr>
<tr><td>3</td><td>The company shall discharge the treated effluent meeting the norms prescribed by G.P.C.B.</td><td>Complied. The discharged effluent is meeting all pollution board limits and values of various parameters of treated effluent is given in Table 1. (Pl. see pg. no. 4)

The maximum values during the compliance period confirms that at no time the emission went beyond the stipulated standards.</td></tr>
</table>

Summary is given below:

Sr. No.	Parameter	Norms	Values for the period May 17 – Oct 17		
			Min.	Max.	Avg.
1	pH	5.5-9.0	7	7.5	7.3
2	Temperature	40 deg C	28	30	28.8
3	Colour (pt. co. scale)in units	---	35	62	46.7
4	Suspended solids	100 mg/l	39	68	48.5
5	Phenolic Compounds	5 mg/l	0.2	0.7	0.5
6	Cyanides	0.2 mg/l	0	0	0
7	Fluorides	2 mg/l	0	0	0
8	Sulphides	2 mg/l	0.1	0.2	0.2
9	Ammonical Nitrogen	50 mg/l	16	38	29.3
10	Total Chromium	2 mg/l	0.01	0.2	0.1
11	Hexavelent Chromium	1 mg/l	0	0	0
12	BOD (3 days at 27^{o}C)	100 mg/l	32	48	39.3
13	COD	250 mg/l	198	232	215.7

The effluent quality at the ETP discharge point is regularly being monitored by the Environmental auditors appointed by GPCB. Latest audit report for the year 16-17 was submitted vide our letter Atul/SHE/CRZ Compliance/01 dated 17/7/17. The same has been already submitted to GPCB vide our latter Atul/GPCB/En. Audit/16-17 dated 28/6/17. The same was submitted to CPCB also as directed.

GPCB also monitor the treated effluent quality at intervals. Recent result by GPCB is attached as **Annexure 1**.

The river water quality at the discharge point is regularly being monitored

		by GPCB. Agencies like NIO, Pollucon Laboratories Pvt. Ltd- MoEF approved agency, Envision Enviro Technologies Pvt. Ltd –NABET accredited have also done the monitoring during the years. Relevant extracts from latest reports were submitted to Ministry vide our letter Atul/SHE/MoEF/Visit/3 dated 4/4/17.
	The company shall keep records of the quality of effluents being discharge during the tides as per the recommendations of N.I.O.	**Complied**. We are keeping the records of quality effluents being discharged during the tides in soft copy as per the recommendations of N.I.O.
4	**The company shall submit the quarterly progress report of compliance of conditions.**	**Complied**. We have submitted progress reports to the Forest and Environment Department of Gujarat during the pipe line installation work. Couple of reports were already submitted to Ministry vide our letter Atul/SHE/MoEF/Visit/3 dated 4/4/17.
5	**The company shall bear all the cost of the agency to be appointed by the Government for overseeing/monitoring the project activities during construction/operational phases.**	Noted and will be complied as and when it will come.
6	**The company shall comply with all the recommendations, additional conditions and environmental safeguards prescribed in the report of NIO dated March, 1997.**	**Complied**. Compliance to NIO recommendations are being followed. Copy of compliance report submitted to Forest and Environment Department of Gujarat was already submitted to Ministry vide our letter Atul/SHE/MoEF/Visit/3 dated 4/4/17.
6	**The company shall submit an Environmental Audit Report every year.**	**Complied**. The Environmental Audit Report for year 16-17 was submitted vide our letter Atul/SHE/CRZ Compliance/01 dated 17/7/17.
7	**The company shall obtain the necessary permissions from different Government department/agencies under different laws/Acts.**	**Complied**. We have received GPCB approval for operating 4Km line vide its consent letter no. 16399 dated 22.12.98. Copy already submitted to Ministry vide our letter Atul/SHE/MoEF/Visit/3 dated 4/4/17.
8	**Any additional conditions which may imposed from time to time.**	Noted and will be complied.

Table 1: Quality of treated effluent

Sr. No.	Parameter	Results						GPCB Limits
		May-17	Jun-17	Juy-17	Aug-17	Sep-17	Oct-17	
1	pH	7.1	7.2	7.5	7	7.2	7.5	5.5 to 9.0
2	Temperature ^{o}C	30	29	28	28	29	29	40 ^{o}C
3	Colour (pt. co. scale)in units	58	62	35	42	35	48	---
4	Suspended solids, mg/l	68	54	43	46	39	41	100
5	Phenolic Compounds, mg/l	0.5	0.7	0.2	0.7	0.2	0.5	5
6	Cyanides, mg/l	ND	ND	ND	ND	ND	ND	0.2
7	Fluorides, mg/l	ND	ND	ND	ND	ND	ND	2
8	Sulphides, mg/l	0.2	0.1	0.1	0.2	0.1	0.2	2
9	Ammonical Nitrogen, mg/l	36	38	28	16	22	36	50
10	Total Chromium, mg/l	0.2	0.1	0.02	0.01	0.02	0.01	2
11	Hexavelent Chromium, mg/l	ND	ND	ND	ND	ND	ND	1
12	BOD (3 days at 27^{o}C), mg/l	40	38	32	36	42	48	100
13	COD, mg/l	226	212	198	202	224	232	250
Note : ND is Not Detectable.								

ANALYSIS REPORT FOR
WATER / WASTE WATER SAMPLE

Sample ID:218880 - Analysis Completion:11/10/2017

Dyes and Dye- Intermediates / LAB Inward : 43072

Gujarat Pollution Control Board, Vapi
C5/124, GIDC Vapi,
Near Hotel Pritam,
Vapi - 396 195
Tele:(0260) 2432089

Accreditation Standards & NABL Certificate Details : Biological(T-3121) / Chemical(T-3120) / 18.09.2014 / 17.09.2016

TEST REPORT

Test Report No. : 43072 **Date: 11/10/2017**

1. Name of the Customer : **Atul Limited - 23158**
2. Address : **5, 6, 29, 30, 33, 34, 35, 37, 38, 80, 81, 84, 85, 91, etc.,AT & P.O.ATUL, Dist. Valsad, Pin: ATUL-396020, Taluka : Valsad, District : Valsad, GIDC : Not In Gidc**
3. Nature of Sample : **REP-Representative/Grab, (Insp Type : COM-On Complaint)**
4. Sample Collected By : **S.B.Patel,SO**
5. Quantity of Sample Received : **0**
6. Code No. of the Sample : **218880**
7. Date & Time of Collection & Inwarding : **28/09/2017 , (1350 to 1350) & 29/09/2017**
8. Date of Start & Completion of Analysis : **29/09/2017 & 11/10/2017**
9. Sampling Point : **## Final Outlet of the ETP ~ -**
10. Flow Details (Remarks) : **yes**
11. Mode of Disposal : **Into River Par estury zone through u/g pipeline**
12. Ultimate Receiving Body : **Estuary zone of river par**
13. Temperature on Collection : **29 & pH Range on pH Strip :@ 7 to 8 on pH STRIP**
14. Carboys Nos for : **Barcode & Color & Appearance :Brownish**
15. Water Consumption & W.W.G (KLPD) : **Ind :23726.000 , Dom :938.000 & Ind :21727.000 , Dom :939.000**

Sr	Parameter	Unit	Test Method	Range of Testing	Result
1	Temperature	Centigrade	IS: 3025 (Part – 9) – 1984(Reaffirmed 2006)	Ambient oC - 60 oC	29
2	pH	pH Units	4500 H+ B APHA Standard Methods 22nd edi.2012	1 – 14 pH value As or	7.53
3	Colour	Pt.Co.Sc.	2120 B APHA Standard Methods 22nd edi. 2012	2 - to 99 Hazen & 1-50	20
4	Total Dissolved Solids	mg/l	Gravimetric method. (2540 C APHA Standard Methoc	10 – 200000 mg/L	2886
5	Suspended Solids	mg/l	Gravimetric method. (2540 D APHA Standard Methoc	2 – 10000 mg/L	44
6	Ammonical Nitrogen	mg/l	1).Titrimetric method (4500 NH3 B & C APHA Standa	1 - 2000 mg/l.	8.09
7	Chloride	mg/l	Argentometric method. (4500 Cl? B APHA Standard M	1 - 50000 mg/l	1124
8	Sulphate	mg/l	APHA(22nd edi)4500 SO4 E	2-40mg/l	390
9	Chemical Oxygen Demand	mg/l	APHA (22nd Edition)- 5220 B Open Reflux Method-2	5.0- 50000 mg/l	241
10	Oil & Grease	mg/l	Liquid – Liquid Partition Gravimetric method. (5520 B	01 – 1000 mg/l	1.0
11	Phenolic Compounds	mg/l	4 Amino Antipyrene method without Chloroform Extra	0.1 – 50 mg/l	BDL
12	Sulphide	mg/l	APHA (22nd Edi.)4500-s2-F –iodometric Method	1-500.0 mg/l	0.506
13	B.O.D (3 Days 27oC)	mg/l	3 – Day BOD test. (IS 3025 (Part 44) 1993 Reaffirmed	05–50000 mg/l	52

Laboratory Remarks : FREEZE By:445-lab_445 Dt.: 11/10/2017

J.D.OZA, Lab Head

Field Observation :

Note :

1. * - These parameters are covered under the scope of NABL.
2. The results refer only to the tested samples and applicable parameters. Endorsement of products is neither inferred nor implied.
3. Samples will be destroyed after 10 days from the date of issue of test report unless otherwise specified.
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6. Total liability of our laboratory is limited to the invoiced amount. Any dispute arising out of this report is subject to Gujarat Jurisdiction only.
7. Permissible Limits: as per Schedule VI of EPA Rules, 1986 as ammended by Second and Third ammendment 1993 for Effluents
8. Physicochemical and microbiological parameters, Std.Methods for Water and Waste Water- 22nd Edition by APHA.
9. Bioassay test (for toxicity) -IS:6582:Part-2:2001; Reaffirmed 2007.

UTILITIES AND SERVICES

ATUL LTD

Atul 396020, Gujarat, India
Telephone: (+91 2632) 230000 | 233261 Telefax: (+91 2632) 233027 | 233619
CIN : L99999GJ1975PLC002859
Email: atul_infra@atul.co.in Website: www.atul.co.in

Ref : Atul/SHE/EC Compliance/07/1 **Through Reg. AD Post**
Date : 30th November, 2017

To,
Regional Officer,
Regional Office, Western Region,
Kendriya Paryavaran Bhavan,
Link Road No. 3, E-5, Ravi Shankar Nagar,
Bhopal 462016, Madhya Pradesh.

Subject : Six Monthly Compliance on EC Condition
Reference : EC NO.SEIAA/GUJ/EC/1(d)/340/2016, dated 20.05.2016

Respected Sir,

Please find attached herewith six monthly compliance report for the period of May 2017-October 2017 with respect to the above referred Environment Clearance granted to M/s Atul Ltd. Valsad, Gujarat.

We hereby request you to kindly validate the same.

Kindly do the needful and oblige.

Thanking you.

Yours truly,
For ATUL LIMITED,

(B. N. Mohanan)
Whole time Director & President – Utility & Services

CC: 1. Mr. B. R. Naidu (Scientist 'E' & In charge), Central Pollution Control Board, Zonal Office , Vadodara
2. The Member Secretary, Gujarat Pollution Control Board, Gandhinagar

UTILITIES AND SERVICES

ATUL LTD

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Ref : Atul/SHE/EC Compliance/02 **Through Reg. AD Post**
Date : 30th November, 2017

To,
The Secretary,
SEAC
Gujarat Pollution Control Board,
Paryavaran Bhavan,
Sector 10 – A,
GANDHINAGAR - 382 010

Subject : Six Monthly Compliance on EC Condition
Reference : EC NO.SEIAA/GUJ/EC/1(d)/340/2016, dated 20.05.2016

Respected Sir,

Please find attached herewith six monthly compliance report for the period of May 2017 – October 2017 with respect to the above referred Environment Clearance granted to M/s Atul Ltd. Valsad, Gujarat.

We hereby request you to kindly validate the same.

Kindly do the needful and oblige.

Thanking you.

Yours truly,
For ATUL LIMITED,

(B. N. Mohanan)
Whole time Director & President – Utility & Services

Atul Limited

Project: Setting up an addition captive power plant of 22 MW at post Atul, Dist. Valsad

EC Compliance Report for the period May 2017 – October 2017 as per EC No. SEIAA/GUJ/EC/1(d)/340/2016

<table>
<tr><th>No.</th><th>Condition</th><th>Compliance</th></tr>
<tr><td colspan="3">Specific Conditions :</td></tr>
<tr><td>1.</td><td>Unit shall comply the emission standards mentioned in the Notification by MOEF&CC vide S.O. 3305(E) dated 07/12/2015.</td><td>Complied. Monthly monitoring is being done by GPCB approved M/s. Royal Environment Auditing & Consultancy Service, Rajkot, an NABL approved agency.

The maximum values during the compliance period confirms that at no time the emission level went beyond the stipulated standards. Parameter wise summary is given below:
Summary of Stack results:
<table>
<tr><th rowspan="2">No.</th><th rowspan="2">Parameter</th><th rowspan="2">Standard values as per CCA</th><th rowspan="2">Unit</th><th colspan="3">Values for the period May 17 – Oct 17</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>1</td><td>SPM</td><td>50.0</td><td>mg/Nm^3</td><td>32</td><td>40</td><td>36</td></tr>
<tr><td>2</td><td>SO_2</td><td>100</td><td>ppm</td><td>30</td><td>38</td><td>34</td></tr>
<tr><td>3</td><td>NOx</td><td>50</td><td>ppm</td><td>28</td><td>37</td><td>34</td></tr>
<tr><td>4</td><td>Mercury</td><td>-</td><td>-</td><td>ND</td><td>ND</td><td>ND</td></tr>
</table>
Details of stack results is given in Table 1. (Pl. see pg. no. 26)</td></tr>
<tr><td>2.</td><td>All measures shall be taken to prevent soil and ground water contamination.</td><td>Complied. No contamination found.</td></tr>
<tr><td>3.</td><td>The project proponent shall submit the detailed study report to Gujarat Pollution Control Board (GPCB) at least once in a year, through the reputed institute or university to assess the impacts on soil and ground water quality, if any due to application of waste water generation from</td><td>Complied. Detailed study report on Groundwater quality in and around Atul was done by reputed and NABL approved agency Pollucon Laboratories Pvt. Ltd, Surat and submitted to GPCB vide our letter dated 22.5.17. Extracts of the same was already submitted to Ministry vide our letter dated 17.7.17.</td></tr>
</table>

<table>
<tr><td></td><td>the CPP and shall adopt the additional mitigation measures as may be suggested through such studies.</td><td></td></tr>
<tr><td></td><td>A.2:WATER:</td><td></td></tr>
<tr><td>4.</td><td>The fresh water requirement for the proposed expansion shall not exceed 2095 KL/day and it shall be met through the existing water supply system from River par.</td><td>Complied. The average water consumption for the referred expansion for the report period is 1900 KL/day only which is well within the limit. Detail break up is given in below table:

<table>
<tr><th>Water Consumption</th><th>May-17</th><th>Jun-17</th><th>Juy-17</th><th>Aug-17</th><th>Sep-17</th><th>Oct-17</th><th>Total</th></tr>
<tr><td>Month wise</td><td>60659</td><td>58517</td><td>49519</td><td>53234</td><td>61128</td><td>64273</td><td>347330</td></tr>
<tr><td>Per day</td><td>2022</td><td>1951</td><td>1597</td><td>1717</td><td>2038</td><td>2073</td><td>1900 (avg.)</td></tr>
</table>

The maximum values during the compliance period confirms that at no time the wastewater generation went beyond the stipulated value. Summary is given below:
<table>
<tr><th rowspan="2">Water Consumption</th><th rowspan="2">Stipulated value</th><th colspan="3">Values for the period May 17 – Oct 17</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>Water Consumption KL/day</td><td>2095</td><td>1597</td><td>2073</td><td>1900</td></tr>
</table></td></tr>
<tr><td></td><td>Permission from the Concern authority for additional water requirement shall be obtained.</td><td>Complied. We already have permission from Government of Gujarat for this additional requirement.</td></tr>
<tr><td>5</td><td>Metering of water shall be done and its records shall be maintained. No ground water shall be tapped in any case for meeting the project requirements.</td><td>Complied. Metering of water is done and its records are maintained. No ground water is tapped for meeting the project requirements.</td></tr>
</table>

<table>
<tr><td>6.</td><td>The industrial effluent generation from the proposed expansion shall not exceed 270 KL/day and entire quantity of effluent shall be utilized for ash quenching, dust suppression, fire hydrant make up, Gardening plants floor cleaning.</td><td>Complied. The average wastewater generation for the report period is 225 KL/day only which is well within the limit and entire quantity is utilized in house and no discharge to ETP. Detail break up is given in below table:

<table>
<tr><th>Wastewater generation</th><th>May-17</th><th>Jun-17</th><th>Juy-17</th><th>Aug-17</th><th>Sep-17</th><th>Oct-17</th><th>Total</th></tr>
<tr><td>Month wise</td><td>7247</td><td>7221</td><td>7953</td><td>5103</td><td>7024</td><td>6097</td><td>40645</td></tr>
<tr><td>Per day</td><td>234</td><td>241</td><td>265</td><td>170</td><td>234</td><td>203</td><td>225 (avg.)</td></tr>
</table>

The maximum values during the compliance period confirms that at no time the wastewater generation went beyond the stipulated value. Summery is given below:

<table>
<tr><th rowspan="2">Wastewater generation</th><th rowspan="2">Stipulated value</th><th colspan="3">Values for the period May 17 – Oct 17</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>Wastewater generation m^3/d</td><td>270</td><td>170</td><td>265</td><td>225</td></tr>
</table>
</td></tr>
<tr><td>7.</td><td>There shall be no discharge of industrial effluent from the proposed project in any case.</td><td>Complied. Neutralization pit has been put in service for waste water generated from D M Plant. RO Plant is commissioned to recycle the cooling tower water.</td></tr>
<tr><td>8.</td><td>Domestic waste water generation shall not exceed 1 KL/day Which shall be disposed of into soak system.</td><td>Complied. Domestic waste water disposed through soak pit system.</td></tr>
<tr><td>9.</td><td>The unit shall provide metering facility at the inlets and outlets of the collection cum reuse system of waste water and maintain records of the same.</td><td>Complied. Meter is provided at the inlet of the collection cum reuse system of waste water and records are being maintained.</td></tr>
<tr><td>10.</td><td>Proper logbooks of waste water reuse system showing quantity and quality of</td><td>Complied. Logbooks maintained.</td></tr>
</table>

<table>
<tr><td></td><td>effluent reused shall be maintained and furnished the GPCB from time to time.</td><td></td></tr>
<tr><td>11.</td><td>Rain water harvesting of rooftop rain water shall be undertaken as proposed in the EIA report of the project and the same water shall be used for the various activities of the project to conserve fresh water as well as to recharge ground water through percolation wells. Before recharging the rain water, pre-treatment must be done to remove suspended matter.</td><td>Complied. Rooftop rain water from Coal sheds and New TG building is collected and used as make up water for cooling tower. Rain water also collected from surrounding area and pumping it to the Clarifloculator units.</td></tr>
<tr><td></td><td>A.3 AIR:</td><td></td></tr>
<tr><td>12.</td><td>Existing two coal fired steam boilers shall be replaced with two AFBC Boilers having capacity 50 TPH each.</td><td>Complied. Two old stoker fired boilers have already been dismantled for upcoming new AFBC boiler.</td></tr>
<tr><td>13.</td><td>Fuel (Indian coal/and or Imported coal and or Lignite) to the tune of 16725 MT/M shall be used for proposed boilers.</td><td>Complied. The average fuel consumption for the report period is 13671 MT/M only which is well within the limit. Detail break up is given in below table:
<table>
<tr><th>Fuel consumption</th><th>May-17</th><th>Jun-17</th><th>Juy-17</th><th>Aug-17</th><th>Sep-17</th><th>Oct-17</th><th>Total</th><th>Average</th></tr>
<tr><td>Month wise</td><td>10559</td><td>12700</td><td>12200</td><td>14671</td><td>17367</td><td>14529</td><td>82026</td><td>13671</td></tr>
</table>
The maximum values during the compliance period confirms that at no time the wastewater generation went beyond the stipulated value. Summary is given below:
<table>
<tr><th rowspan="2">Fuel consumption</th><th rowspan="2">Stipulated value</th><th colspan="3">Values for the period May 17 – Oct 17</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td>Fuel consumption MT/M</td><td>16725</td><td>10559</td><td>17367</td><td>13671</td></tr>
</table>
</td></tr>
</table>

14.	Sulfur and ash content of the fuel to be used shall be analyzed and its record shall be maintained.	**Complied**. Sulfur and ash content of the fuel used is analyzed and its record shall be maintained. Ash Content: 30-35 % (Indian Coal), 10-12% (Imported coal) Sulphur Content: <0.1% (Indian Coal), <0.2% (Imported coal)
15	A Long term study of radio activity and heavy metal contents in coal/ lignite to be used shall be carried out through a reputed institute and results thereof analyzed regularly and reported along with monitoring reports. Thereafter mechanism for an in-built continuous monitoring for radio activity and heavy metals in coal/lignite and Flyash (Including bottom ash) shall be put in place.	Noted.
16.	Height of flue gas stacks attached to boilers shall be minimum 74.58 meters.	**Complied**. The emission is dispersed through adequate height of stacks as per CPCB standard as given below: For Boilers : Stack Height $H=14(Q)^{0.3}$ Height of the stack is 106 meters, which is actually higher than norms.
17.	A flue gas stack of 74.58 m height shall be provided with online monitoring system to proposed steam Boiler. Mercury gas emission from stacks shall also be monitored on periodic basis.	**Complied**. Height of the stack is 106 meters. Online monitoring system for SPM, SOx and NOx is already been made and connected to CPCB server. Mercury emission is also monitored on monthly basis by GPCB approved M/s. Royal Environment Auditing & Consultancy Service, Rajkot, an NABL approved agency. Please refer point 1.

18.	High efficiency Electro static precipitators (ESP) with efficiency not less than 99.9% shall be installed for control of flue gas emission from the proposed Boilers.	**Complied**. Total 4 field ESP has been installed and commissioned to meet further stringent requirement also.
	The ESP shall be operated efficiently to ensure that particulate matter emission does not exceed the GPCB norms.	**Complied**. Particulate matter emission did not exceed the GPCB norms during report period. Please refer point 1.
	The control system shall be designed and integrated in plant DCS in such a way that amended from ESP exceeds the specified standard prescribed in the Environment (protection) Rules 1986 as amended from time to time, utilization of boiler capacity shall so that flue gas emission from the stack meets with the specified standards or boiler shall shut down totally.	**Complied**. Flue gas emission from the stack meets with the specified standards for the report period. Please refer point 1.
19.	Third party monitoring of the functioning of ESP along with efficiency shall be carried out once in a year through a reputed institute / organization.	**Complied**. The monitoring has been carried out and found satisfactory.
20.	Lime stone injection technology shall be adopted to control SO2 and it shall be ensured that SO2 levels in the	**Complied**. A system to inject lime stone powder and meeting with the prescribed norms of SO_2 is already been installed and interconnected with the online emission monitoring system. SO_2 levels in the ambient air did not exceed the prescribed standards for the report period. Please refer point 30.

<table>
<tr><td></td><td>ambient air do not exceed the prescribed standards.</td><td></td></tr>
<tr><td>21.</td><td>The company shall prepare schedule and carry out regular preventive maintenance of mechanical and electrical parts of ESPS and assign responsibility of preventive maintenance to the senior officer of the company.</td><td>Complied. Our company is ISO 14001 certified company and regular preventive maintenance of all the critical equipment is a part of our system.</td></tr>
<tr><td>22.</td><td>Diesel to the tune of 300 Lit/hr shall be used as a fuel in stand –by D. G. Set (1500 KVA)</td><td>Complied. The average diesel consumption for the report period is 10.22 Lit/hr only which is well within the limit. Detail break up is given in below table:
<table>
<tr><th>Diesel consumption</th><th>May-17</th><th>Jun-17</th><th>Juy-17</th><th>Aug-17</th><th>Sep-17</th><th>Oct-17</th><th>Total</th></tr>
<tr><td>Month wise</td><td>210</td><td>20420</td><td>0</td><td>0</td><td>0</td><td>1500</td><td>22130</td></tr>
<tr><td>Per Hr</td><td>0.28</td><td>28.36</td><td>0</td><td>0</td><td>0</td><td>2.02</td><td>10.22 (avg.)</td></tr>
</table></td></tr>
<tr><td rowspan="2">23.</td><td>The flue gas emission from DG set shall be dispersed through adequate stack height as per CPCB standards. At no time the emissions levels shall go beyond the stipulated standards.</td><td>Complied. DG set run for emergency start up only.</td></tr>
<tr><td>Acoustic enclosure be provided to DG seta to mitigate the noise pollution.</td><td>Complied. Acoustic enclosure provided to DG set.</td></tr>
<tr><td rowspan="2">24.</td><td>Online monitoring system shall be installed to monitor the SOx, NOx and SPM in the flue gas stack.</td><td>Complied. Online monitoring system for SPM, SOx and NOx is already been made and connected to CPCB server.</td></tr>
<tr><td>An arrangement shall also be done for reflecting the online</td><td>Complied.</td></tr>
</table>

	monitoring result on the company's server, which can be assessable by the constructed.	
25.	Adequate storage facility for the fly ash in terms of closed silos shall be provided at site. No pond shall be constructed.	**Complied**. Two silos of 330 m^3 capacity for fly ash and one silo of 45 m^3 for bottom ash are provided.
26.	Handling of the fly ash shall be through a closed pneumatic system.	**Complied**. It is already provided.
27.	Ash shall be handled only in dry state.	**Complied**.
28.	The unit shall strictly comply with the fly ash Notification under the EPA and it shall ensure that there is 100% utilization of fly ash to be generated from the unit.	**Complied**. Fly ash generated is utilized 100%. Data given in **Table 2**. (Pl. see pg. no. 26)
29	The fugitive emission in the work zone environment shall be monitored. The emission shall confirm to the standards prescribed by the concerned authorities from time to time (e.g. Directors of Industrial Safety & Health) Following Indicative guidelines shall be also be followed to reduce the fugitive emission.	**Complied**.
	All handing & transport of coal & Lignite shall be exercised through covered coal conveyors only.	**Complied**. All handing & transport of coal & Lignite is done through covered coal conveyors only.

	Enclosure shall be provided at coal / Lignite loading and uploading operations.	**Complied**. Enclosure provided.
	Water shall be sprinkled on coal / Lignite stock piles periodically to retain some moisture in top layer and also while compacting to reduce the fugitive emission.	**Complied**. Water regularly sprinkled on coal / Lignite stock piles to retain some moisture in top layer and also while compacting to reduce the fugitive emission.
	All transfer points shall be fully enclosed.	**Complied**. All transfer points are fully enclosed.
	Adequate dust suppression / extraction system at crusher house as well as for the coal/ Lignite stock yard and other vulnerable areas shall be provided to abate dust nuisance.	**Complied**. Adequate dust extraction system at crusher house is provided While dust suppression system the coal/ Lignite unloading areas to abate dust nuisance.
	Accumulated coal dust / fly ash on the ground and surfaces shall be removed / swept regularly and water the area after sweeping.	**Complied**. Coal dust / Fly ash is being cleaned regularly. Coal dust and fine particles are being loaded to coal handling plant after spraying water on it.
	Internal roads shall be either concreted or asphalted or paved properly to reduce the fugitive emission during vehicular movement.	**Complied**. Paver blocks have been provided in the ESP and some internal area of power plant. Concrete Road have been built in the surrounding area of Power Plant to reduce fugitive emissions during vehicle movement.
	Air borne dust shall be controlled with water sprinkles at suitable locations in the plant. Coal / Lignite shall be transported through covered trucks only whereas fly ash	**Complied**. Waste water of neutralization pit is being used for dust suppression in Coal plant and Fly ash handling units. Covered trucks / closed bulkers are being utilized for handling coal and fly ash.

<table>
<tr><td></td><td>shall be transported through closed trucks only.</td><td></td></tr>
<tr><td></td><td>A green belt shall be developed all around the plant boundary and also the roads to mitigate fugitive & transport dust emission.</td><td>Complied. Proper plantation is done all around the plant boundary and also the roads to mitigate fugitive & transport dust emission.</td></tr>
<tr><td>30.</td><td>Regular Monitoring of ground level concentration of PM2.5, PM10, NOx, SO2 and Hg shall in the impact zone and its records shall be maintained.</td><td>Complied. We are regularly monitoring PM2.5, PM10, NOx, SO2 in ambient air and will be continued monitoring. Ambient Air data given in Table 3. (Pl. see pg. no. 26)</td></tr>
<tr><td></td><td>Ambient air quality levels shall not exceed the standards stipulated by GPCB.</td><td>Complied. The Location of ambient air quality monitoring stations had been decided in consultation with GPCB so that at least one station is installed in the up wind and downwind direction as well as where maximum ground level concentration are anticipated. This also covers the impact, if any, of the project plant. The same had been shown to authority like SPCB, CPCB & MoEF during their visit to our factory.

The maximum values during the compliance period confirms that at no time the emission level went beyond the stipulated standards. Parameter wise summary is given below:

Summary of Ambient Air Quality results:

<table>
<tr><th rowspan="2">Station</th><th rowspan="2">Parameter</th><th rowspan="2">Limit microgm/NM³</th><th colspan="3">Values for the period May 17 – Oct 17</th></tr>
<tr><th>Min.</th><th>Max.</th><th>Avg.</th></tr>
<tr><td rowspan="6">66 KV</td><td>RSPM (PM2.5)</td><td>60</td><td>22.0</td><td>29.0</td><td>26.3</td></tr>
<tr><td>PM10</td><td>100</td><td>48.0</td><td>59.0</td><td>55.0</td></tr>
<tr><td>SO2</td><td>80</td><td>8.2</td><td>56.0</td><td>17.0</td></tr>
<tr><td>NOx</td><td>80</td><td>9.5</td><td>11.8</td><td>10.4</td></tr>
<tr><td>Ammonia</td><td>850</td><td>ND</td><td>10.2</td><td>1.7</td></tr>
<tr><td>HCl</td><td>200</td><td>ND</td><td>5.6</td><td>1.7</td></tr>
</table>
</td></tr>
</table>

		Opposite Shed D	RSPM (PM2.5)	60	27.0	35.0	30.7	
			PM10	100	49.0	59.0	53.5	
			SO2	80	10.4	11.2	10.6	
			NOx	80	11.2	13.6	11.9	
			Ammonia	850	13.4	18.2	15.6	
			HCl	200	ND	ND	ND	
		Near West site ETP	RSPM (PM2.5)	60	31.0	38.0	33.8	
			PM10	100	51.0	58.0	55.0	
			SO2	80	10.2	11.2	10.7	
			NOx	80	12.2	13.2	12.6	
			Ammonia	850	ND	ND	ND	
			HCl	200	ND	ND	ND	
		Near North ETP	RSPM (PM2.5)	60	30.0	37.0	33.2	
			PM10	100	49.0	56.0	53.5	
			SO2	80	9.6	10.8	10.1	
			NOx	80	1.4	13.6	9.9	
			Ammonia	850	11.2	14.6	13.1	
			HCl	200	ND	ND	ND	
		TSDF	RSPM (PM2.5)	60	30.0	38.0	35.5	
			PM10	100	52.0	59.0	56.5	
			SO2	80	9.6	12.2	11.2	
			NOx	80	11.4	14.6	13.1	
			Ammonia	850	ND	ND	ND	
			HCl	200	ND	ND	ND	
		Main Guest House	RSPM (PM2.5)	60	20.0	28.0	22.3	
			PM10	100	45.0	52.0	49.0	
			SO2	80	10.2	11.2	10.5	
			NOx	80	10.8	12.6	11.5	
			Ammonia	850	ND	ND	ND	
			HCl	200	ND	ND	ND	

		Wyeth Colony	RSPM (PM2.5)	60	20.0	27.0	23.5	
			PM10	100	46.0	54.0	50.7	
			SO2	80	8.6	11.4	9.7	
			NOx	80	9.2	12.8	10.8	
			Ammonia	850	ND	ND	ND	
			HCl	200	ND	ND	ND	
		Gram panchayat hall	RSPM (PM2.5)	60	21.0	26.0	23.8	
			PM10	100	46.0	54.0	49.7	
			SO2	80	9.2	10.2	9.6	
			NOx	80	9.6	11.4	10.7	
			Ammonia	850	ND	ND	ND	
			HCl	200	ND	ND	ND	
		Main office, North site	RSPM (PM2.5)	60	23.0	35.0	27.3	
			PM10	100	47.0	59.0	54.3	
			SO2	80	9.6	12.8	11.5	
			NOx	80	10.2	13.4	12.3	
			Ammonia	850	ND	ND	ND	
			HCl	200	ND	ND	ND	
		Haria water tank	RSPM (PM2.5)	60	20.0	28.0	24.0	
			PM10	100	38.2	52.0	45.5	
			SO2	80	6.2	9.3	7.4	
			NOx	80	7.6	10.8	9.3	
			Ammonia	850	ND	ND	ND	
			HCl	200	ND	ND	ND	
	If at any stage these levels are found to exceed the prescribed limits necessary additional control measures shall be taken be decided in consultation with the GPCB.	**Complied**. No such case found.						

	A.4 SOLID/ HAZARDOUS WASTE:	
31.	The company shall strictly comply with the rules and regulations with regards to handling and disposal of Hazardous waste in accordance from time to time.	**Complied**.
	Authorization from the GPCB shall be obtained for collection / treatment/storage disposal of hazardous waste.	**Complied**. We have CCA valid up to 3.11.19
32.	Hazardous waste sludge shall be packed stored in separate designated hazardous waste storage facility with impervious bottom and leachate collection facility, before its disposal.	**Complied**. There is no Haz. waste generation in this project.
33.	The used oil shall be sold to only to the registered recyclers / refiners.	**Complied**. Used oil is being sold to GPCB authorized vendor namely ABC Organics & Chemicals.
34.	The discarded containers / barrels /bags/ liners shall be sold only to the registered recycler.	**Complied**. No bags / liners are being utilized for Power Plant.
35.	For storage of fly ash closed silos of adequate capacity shall be provided.	**Complied**. Fly ash Silos 2 No's of storage capacity 300 Cu.M each have been installed. A separate bed ash silo of 100 Cu.M has been installed.
	No ash pond shall be construed in the project.	**Complied**. No ash pond is construed in the project.
36.	The fly ash shall be supplied to the manufacturers of fly ash based products such as	**Complied**. Fly ash is being given to Cement and Bricks manufacturers and also being used for our own Bricks Manufacturing unit.

	cement, concrete blocks, bricks, panels, etc.	
	The unit shall strictly comply with the Fly Ash Notification under EPA and it shall be ensured that there is 100% utilization of fly ash to be generated from the unit.	**Complied**. We are complying with the Fly Ash Notification under EPA and there is 100% utilization of fly ash being generated from the unit. Please refer point 28.
37.	All possible efforts shall be made for co-processing of the Hazardous waste prior to disposal into TSDF/CHWIF.	**Complied**.
	A.5 SAFETY:	
38.	The project management shall strictly comply with the provisions made in the Factories Act, 1948 as well as manufacturer, storage and Impact of Hazardous chemicals Rules 1989 as amended in 2000 for handling of hazardous chemicals.	**Complied**.
39.	Necessary precautions like continuous monitoring of hot spot (ignite lignite) using temperature detection systems water sprinklers, avoiding stacking of lignite near stream pipeline etc shall be made for storing lignite to prevent fire hazard.	**Complied**. Lignite is usually used on the same day of its receiving at site as far as possible. Lignite is not being stored for not more than 3-4 Days. However, Water spray and fire hydrant system is available for the fuel storage sheds.
40.	All the risk mitigation measures, general & specific	**Complied**. All recommendations implemented.

	recommendations mentioned in risk Assessments Report shall be implemented.	
41.	A well designed fire hydrants system shall be installed as per the prevailing standards.	**Complied.** Fire hydrant system is adequate and as per standards.
42.	Personal protective Equipment shall be provided to worker and its usage shall be ensured and supervised.	**Complied**. PPEs like nose masks, safety goggles, chemical resistive aprons, fire proof apron, Hand gloves, safety helmet, welding goggles, ear mugs, safety shoes etc are provided to the workers and utilization of the PPEs is followed strictly in Power Plant.
43.	First Aid Box and required antidotes for the chemical used in the unit shall be readily available in adequate quantity at all the times.	**Complied.** First aid box are kept in each plant and at strategic locations whereas antidotes are kept in the medical Centre.
44.	Occupational health surveillance of the workers shall be done its records shall be maintained. Pre - employment and periodical medical examination for all the worker shall be undertaken as per the Factories Act & rules.	**Complied**. Being done on regular basis as per the Factories Act & rules.
45.	Flameproof fittings shall be provided at the proposed power plant.	**Complied**. Flame proof fittings are provided.
46.	Adequate firefighting facilities shall be provided at the proposed power plant.	**Complied.** Firefighting facilities are adequate.
47.	Proper ventilation shall be provide in the work area.	**Complied.** Proper ventilation provided.
48.	All transporting routes within the factory premise shall have	**Complied**. The roads inside factory are either of cement concrete or Bitumen concrete.

	paved roads to minimize splashes and spillages.	
49.	The project management shall prepare a details Disaster management plan (DMP) for the project as the guidelines from Directors of Industrial safety and Health.	**Complied.** Detailed disaster management plan is already prepared.
	A.6 NOISE:	
50.	To minimize the noise pollution the following noise control measures shall be implemented.	**Complied.**
	Selection of any new plant equipment shall be made with specifications of low levels.	**Complied.** All steam vents have attached with Silencers. Low noise level is considered as one of the prime specifications while selecting new machines in Power plant. For Example, Replacement of reciprocating type noisy air compressors by low noise emitting screw air compressors.
	Manufacturer / supplier of major noise generating machines / equipment like air compressor. Feeder pumps, turbine generators, etc shall be instructed to make required design modifications wherever possible regulatory norms with respect to noise generation for individual units.	**Complied.**
	Regular maintenance of machinery and vehicles shall be undertaken to reduce the noise impact.	**Complied.**
	Noise suppression measures such as enclosures, buffers	**Complied**. Acoustic enclosures are provided on DG sets. Silencers have been provided on main steam vent valves of Boilers.

	and / or protective measures shall be provided.	
	Employees shall be provided with ear protection measures like earplugs or earmuffs.	**Complied.**
	Proper oiling lubrication and preventive maintenance shall be carried out of the machineries and equipment to reduce noise generation.	**Complied.**
	Construction equipment generating minimum noise vibration shall be chosen.	**Complied.**
	Ear plugs and / muffs shall be made compulsory for the construction workers working near the noise generating activities / machines / equipment.	**Complied.**
	Vehicles and construction equipment with internal combustion engines without proper silencer shall not be allowed to operate.	**Complied.**
	Construction equipment meeting the norms specified by EP Act, 1986 shall only be used.	**Complied.**
	Noise control equipment and baffling shall be employed on generators especially when they are operated near the residential and sensitive areas.	**Complied.**

<table>
<tr><td></td><td>Noise levels shall be reduced by the use of adequate mufflers on all motorized equipment</td><td>Complied.</td></tr>
<tr><td>51.</td><td>The overall noise level in and around the plant area shall be kept well within the prescribed standard by providing noise control measures including acoustic insulation, hoods, silencers, enclosures, vibration, dampers etc.on all sources of noise generation.</td><td>Complied. Silencers, acoustic hood are provided.</td></tr>
<tr><td></td><td>The ambient noise levels shall confirm to the standards prescribed under the Environment (protection) Act and Rules. Workplace noise levels for workers shall be as per the factories Act and Rules.</td><td>Complied. The ambient and workplace noise level confirms to the standard prescribed under EPA. The same is being regularly monitored and its details are given in Table 4 and 5. (Pl. see pg. no. 28, 29)

The maximum values during the compliance period confirms that at no time the noise emission level went beyond the stipulated standards. Summary is given below:

Noise level monitoring data (Day Time)
<table>
<tr><th>Sr. No.</th><th>Location</th><th>Permissible Limits, dBA</th><th colspan="3">Values for the period May 17 – Oct 17</th></tr>
<tr><td></td><td></td><td>75</td><td>Min.</td><td>Max.</td><td>Avg.</td></tr>
<tr><td>1</td><td>Near Main guest house</td><td>75</td><td>58</td><td>65</td><td>62</td></tr>
<tr><td>2</td><td>Near TSDF</td><td>75</td><td>61</td><td>67</td><td>63</td></tr>
<tr><td>3</td><td>At Wyeth Colony</td><td>75</td><td>58</td><td>62</td><td>60</td></tr>
<tr><td>4</td><td>Gram Panchayat Hall</td><td>75</td><td>58</td><td>63</td><td>60</td></tr>
<tr><td>5</td><td>Near Main Office North site</td><td>75</td><td>57</td><td>63</td><td>59</td></tr>
<tr><td>6</td><td>ETP North site</td><td>75</td><td>62</td><td>67</td><td>65</td></tr>
<tr><td>7</td><td>Opposite shed D</td><td>75</td><td>62</td><td>68</td><td>65</td></tr>
<tr><td>8</td><td>ETP West site</td><td>75</td><td>61</td><td>68</td><td>64</td></tr>
</table></td></tr>
</table>

		9 | Water tank Haria road | 75 | 64 | 68 | 66 10 | Near 66KVA substation | 75 | 59 | 67 | 63 **Noise level monitoring data (Night Time)** **Sr. No. | Location | Permissible Limits, dBA | Values for the period May 17 – Oct 17** **| | 70 | Min. | Max. | Avg.** 1 | Near Main guest house | 70 | 52 | 58 | 56 2 | Near TSDF | 70 | 54 | 59 | 57 3 | At Wyeth Colony | 70 | 51 | 55 | 53 4 | Gram Panchayat Hall | 70 | 52 | 58 | 55 5 | Near Main Office North site | 70 | 51 | 57 | 54 6 | ETP North site | 70 | 58 | 61 | 60 7 | Opposite shed D | 70 | 54 | 62 | 59 8 | ETP West site | 70 | 52 | 62 | 58 9 | Water tank Haria road | 70 | 56 | 62 | 58 10 | Near 66KVA substation | 70 | 55 | 62 | 58
	A.7 GREEN BELT AND OTHER PLANTATION.	
52.	The unit shall develop green belt in at least 68000 sq.m area within the premises. Green belt shall comprises of rows of varying height tall native trees with thick foliage in the periphery of the factory premises.	**Complied.** Green belt is developed and we planted more than 50000 plants every year.
53.	The unit shall also take up adequate plantation at suitable open Land on road sides and other open areas in nearby villages or schools in	**Complied**. We plant more than 50000 plants every year on road sides and other open areas in nearby villages or schools in consultation with the Gram panchayat.

	consultation with the Gram panchayat / GPCB and submit an action plan for the same for next three years to the GPCB.	
	B.OTHER CONDITIONS:	
54.	In the event of failure of any pollution control system adopted by the unit, the unit shall be safely closed down and shall not be restarted until the desired efficiency of the control equipment has been achieved.	**Complied**. No such case during the repot period. However, if such case happens we ensure to close down the unit.
55.	All the recommendation , mitigation measures ,environments protection measures and safeguard proposed in the EIA report of the project prepared by M/s ; Eco chem Sales &Service ,surat & submitted vide letter no NIL dated 03/11/2015 and commitments made during presentation before SEAC, proposed in the EIA report shall be strictly adhered to in letter and spirit.	**Complied**.
56.	All the recommendation of CREP guidelines as may be applicable from time to time shall be following vigorously.	**Complied**. CREP guidelines is being followed.
57.	A separate environment management cell with qualified staff shall be set up	**Complied**. Implementation of stipulated environmental safeguards were ensured by the Company's SHE department.

	for implementation of stipulated environmental safeguards.	
58.	The project authorities must strictly adhere to stipulations made by the Gujarat Pollution Control Board (GPCB), state government and statutory authority.	**Complied**.
59.	No further expansion or modification in the plant likely to cause environmental impacts shall be carried out without obtaining prior Environment Clearance from the concerned authority.	**Complied**. No further expansion took place.
60.	The above conditions will be enforced, inter-alla under the provisions of water (prevention &Control or pollution) Act, 1974, Air (prevention & Control of pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous & other wastes (Management and Trans boundary Movements) Rules 2016 and the public liability insurance Act, 1991 along with their amendments and rules.	Noted.
61.	The project proponent shall comply all the conditions mentioned in ' The Companies (Corporate Social Responsibility Policy) Rules,	**Complied**.

<table>
<tr><td></td><td>2014 and its amendments from time to time in a letter and spirit.</td><td></td></tr>
<tr><td>62.</td><td>The project proponent shall ensure that unit complies with all the environment protection measures, risk mitigation measures and safeguards recommended in the EMP report and Risk .Assessments study repot as well as proposed by project proponent.</td><td>Complied. All the recommendations suggested in the EMP report and Risk assessments study repot as well as proposed by us have been implemented.</td></tr>
<tr><td>3.</td><td>The project authorities shall earmark adequate funds to implement the conditions stipulated by SEIAA as GPCB along with the implementation scheduled for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purpose.</td><td>Complied.

EMP measures are implemented.
A separate budget is being allocated every year to comply with all the legal requirement stipulated by SPCB, CPCB & MoEF apart from upkeep of pollution control systems and facilities. Total expenditure is given in below table including EMS implementation:

<table>
<tr><th>Details</th><th>Expense in Lac Rs.</th></tr>
<tr><td>Site development</td><td>25</td></tr>
<tr><td>Civil work</td><td>2000</td></tr>
<tr><td>Plant and machinery</td><td>6049</td></tr>
<tr><td>Environment management system</td><td>984</td></tr>
<tr><td>Greenbelt development</td><td>10</td></tr>
<tr><td>Other assets | Contingency</td><td>200</td></tr>
<tr><td>Establishment charges</td><td>15</td></tr>
<tr><td>Project management and consultancy</td><td>50</td></tr>
<tr><td>Idc and financial charges</td><td>350</td></tr>
<tr><td>Total</td><td>9683</td></tr>
</table>
</td></tr>
</table>

64.	The applicant shall inform the public that the project has been accorded environmental clearance by the SEIAA and that the copies of the clearance letter are available with the GPCB and May also be seen at website of SEIAA / SEAC/ GPCB.	**Complied.** The advertisement given in newspapers as well as copies distributed to the Panchayat, Zila parishad, District Industrial Centre on 11.11.2016.
	This shall be advertised within seven days from the date of the clearance letter, in at least two local newspapers that are widely circulated in the region, one of which shall be in the Gujarat language and the other in English.	**Complied.** The advertisement copy already submitted vide our letter dated 27.1.17.
	A copy each of the same shall be forwarded to the concerned Regional office of the Ministry.	**Complied.** The advertisement copy already submitted vide our letter dated 27.1.17.
65.	The project proponent shall also comply with additional conditions that may be imposed by the SEAC or the SEIAA or any other competent authority for the purpose of the environmental protection and management.	**Complied.** No additional conditions so far imposed by the SEAC or the SEIAA or any other competent authority for the purpose of the environmental protection and management.
66.	It shall be mandatory for the project management to submit half-yearly compliance report in respect of the stipulated prior environmental clearance terms and condition in hard	**Complied.** We regularly submit the half-yearly compliance report.

	and soft copies to the regulatory authority concerned on 1st June and 1st December of each calendar year.	
67.	Concealing factual data or submission of false / fabricated data and failure to comply with any of conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.	Noted.
68.	The project authorities shall also adhere to the stipulations made by the Gujarat Pollution Control Board.	**Complied.**
69.	The SEIAA may revoke or suspend the clearance. If implementation of any of the above conditions is not found satisfactory.	Noted.
70.	The company in a time bound manner shall implement these conditions. The SEIAA reserves the stipulate additional conditions, if the same is found necessary.	Noted.
71.	The project authorities shall inform the GPCB, Regional Office of MoEF and SEIAA about the date of financial	**Complied.**

	closure and final approval of the project by the concerned authorities and the date of start of the project.	
72.	This environmental clearance is valid for seven years from the date of issue.	Noted.
73.	Any appeal against this environmental clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 day as prescribed under section 16 of the National Green Tribunal Act, 2010.	Noted.

Table 1 : Stack Result

No.	Parameter	Standard values as per CCA	Unit	May-17	Jun-17	Juy-17	Aug-17	Sep-17	Oct-17
1	SPM	50	mg/Nm^3	38	35	34	32	38	40
2	SO_2	100	ppm	35	32	30	35	35	38
3	Nox	50	ppm	36	34	28	31	37	36
4	Mercury	-	-	ND	ND	ND	ND	ND	ND

Table 2 : Fly ash generation and disposal details:

Fly Ash	Unit	May-17	Jun-17	Juy-17	Aug-17	Sep-17	Oct-17
Generation	MT	2810.964	2431.85	2629.122	2452.76	3089.877	1901.21
Disposal	MT	2810.964	2431.85	2629.122	2452.76	3089.877	1901.21

Table 3 : Ambient air monitoring:

Station	Parameter	Limit microgm/NM^3	May-17	Jun-17	Juy-17	Aug-17	Sep-17	Oct-17
66 KV	PM 2.5	60	28	26	22	27	26	29
	PM10	100	57	52	48	56	59	58
	SO2	80	10.8	9.2	8.2	56	8.6	9.2
	NOx	80	11.8	10.6	11.2	9.5	9.8	9.6
	Ammonia	850	0	0	0	10.2	0	0
	HCl	200	0	0	0	0	4.8	5.6
Opposite Shed D	PM 2.5	60	35	33	29	27	29	31
	PM10	100	59	56	54	52	49	51
	SO2	80	10.4	11.2	10.6	10.4	10.8	10.4
	NOx	80	12.2	13.6	11.2	11.4	11.8	11.2

	Ammonia	850	16.4	15.4	13.4		14.4	18.2
	HCl	200	0	0	0	0	0	0
Near West site ETP	PM 2.5	60	32	36	31	32	34	38
	PM10	100	54	58	51	56	53	58
	SO2	80	11.2	10.8	10.2	10.8	10.2	11.2
	NOx	80	13.2	12.6	12.4	12.2	12.6	12.8
	Ammonia	850	0	0	0	0	0	0
	HCl	200	0	0	0	0	0	0
Near North ETP	PM 2.5	60	37	35	33	30	31	33
	PM10	100	56	53	49	54	56	53
	SO2	80	10.6	10.8	9.6	10.4	9.6	9.8
	NOx	80	12.4	13.6	10.6	1.4	10.8	10.6
	Ammonia	850	13.4	14.6	12.5		11.2	13.8
	HCl	200	0	0	0	0	0	0
TSDF	PM 2.5	60	35	38	30	35	38	37
	PM10	100	52	56	55	58	59	59
	SO2	80	11.6	12.2	9.6	11.2	11.8	10.6
	NOx	80	13.4	14.6	13.2	12.4	13.4	11.4
	Ammonia	850	0	0	0	0	0	0
	HCl	200	0	0	0	0	0	0
Main Guest House	PM 2.5	60	20	23	21	20	22	28
	PM10	100	49	51	48	45	49	52
	SO2	80	10.2	10.8	10.4	10.2	10.4	11.2
	NOx	80	11.6	11.2	11.6	11.2	10.8	12.6
	Ammonia	850	0	0	0	0	0	0
	HCl	200	0	0	0	0	0	0
Wyeth Colony	PM 2.5	60	22	20	24	22	27	26
	PM10	100	51	46	52	49	52	54
	SO2	80	10.4	9.2	11.4	8.6	9.4	9.3
	NOx	80	10.8	10.4	12.8	9.2	10.6	11.2
	Ammonia	850	0	0	0	0	0	0

	HCl	200	0	0	0	0	0	0
Gram panchayat hall	PM 2.5	60	21	22	26	23	25	26
	PM10	100	46	50	51	48	49	54
	SO2	80	9.2	9.6	10.2	9.3	9.8	9.3
	NOx	80	9.6	10.8	11.4	10.6	10.4	11.2
	Ammonia	850	0	0	0	0	0	0
	HCl	200	0	0	0	0	0	0
Main office, North site	PM 2.5	60	27	25	23	26	28	35
	PM10	100	58	56	47	50	56	59
	SO2	80	12.3	12.8	9.6	10.8	11.2	12.4
	NOx	80	13.4	13.1	10.2	11.4	12.2	13.2
	Ammonia	850	0	0	0	0	0	0
	HCl	200	0	0	0	0	0	0
Haria water tank	PM 2.5	60	22	20	26	24	24	28
	PM10	100	42	46	38.2	49	46	52
	SO2	80	7.2	6.4	7.9	9.3	6.2	7.2
	NOx	80	10.8	9.8	8.8	10.2	7.6	8.4
	Ammonia	850	0	0	0	0	0	0
	HCl	200	0	0	0	0	0	0

Table 4 : Noise level monitoring data (Day Time)

Sr. No.	**Location**	**Noise Level, dBA**						**Permissible Limits, dBA**
		May-17	**Jun-17**	**Juy-17**	**Aug-17**	**Sep-17**	**Oct-17**	75
1	Near Main guest house	58	60	62	61	63	65	75
2	Near TSDF	62	63	61	63	62	67	75
3	At Wyeth Colony	61	58	59	60	60.4	62	75
4	Gram Panchayat Hall	59	62	63	58	59	61	75
5	Near Main Office North site	63	57	58	59	57	59	75
6	ETP North site	67	65	66	65	64	62	75
7	Opposite shed D	66	68	64	63	62	64	75

8	ETP West site	68	66	63	61	63	62	75
9	Water tank Haria road	64	64	67	68	66	65	75
10	Near 66KVA substation	59	61	64	67	64	61	75

Table 5 : Noise level monitoring data (Night Time)

Sr. No.	**Location**	**Noise Level, dBA**						**Permissible Limits, dBA**
		May-17	**Jun-17**	**Juy-17**	**Aug-17**	**Sep-17**	**Oct-17**	70
1	Near Main guest house	52	55	56	58	56	58	70
2	Near TSDF	56	57	57	59	57	54	70
3	At Wyeth Colony	54	53	54	55	52	51	70
4	Gram Panchayat Hall	52	57	58	56	54	53	70
5	Near Main Office North site	57	52	53	51	53	56	70
6	ETP North site	61	60	59	58	61	58	70
7	Opposite shed D	60	62	60	56	59	54	70
8	ETP West site	62	61	57	55	58	52	70
9	Water tank Haria road	57	58	62	57	56	59	70
10	Near 66KVA substation	56	55	58	62	61	57	70